

```
fil %^STN;HighlightOn=;HighlightOff=;
=> d his ful
```

(FILE 'REGISTRY' ENTERED AT 08:44:37 ON 23 JAN 2006)

## ACT METALS/A

```
-----
L1 (      1)SEA ABB=ON  PLU=ON  IRON/CN
L2 (      1)SEA ABB=ON  PLU=ON  COBALT/CN
L3 (      1)SEA ABB=ON  PLU=ON  NICKEL/CN
L4 (      1)SEA ABB=ON  PLU=ON  ZINC/CN
L5 (      1)SEA ABB=ON  PLU=ON  SILVER/CN
L6 (      1)SEA ABB=ON  PLU=ON  GOLD/CN
L7 (      1)SEA ABB=ON  PLU=ON  MANGANESE/CN
L8 (      1)SEA ABB=ON  PLU=ON  CHROMIUM/CN
L9 (      1)SEA ABB=ON  PLU=ON  VANADIUM/CN
L10 (     1)SEA ABB=ON  PLU=ON  TITANIUM/CN
L11 (     1)SEA ABB=ON  PLU=ON  SCANDIUM/CN
L12      11 SEA ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5 OR L6 OR L7 OR
      L8 OR L9 OR L10 OR L11)
-----
```

## ACT PROPLY/A

```
-----
L13 (     1)SEA ABB=ON  PLU=ON  25037-42-7
L14 (     1)SEA ABB=ON  PLU=ON  32290-92-9
L15      2 SEA ABB=ON  PLU=ON  L13 OR L14
-----
```

## ACT POLYETHYL/A

```
-----
L16 (    1653)SEA ABB=ON  PLU=ON  151-56-4/CRN
L17 (    1535)SEA ABB=ON  PLU=ON  L16 AND POLY?
L18 (       4)SEA ABB=ON  PLU=ON  L17 AND 1=NC
L19 (       2)SEA ABB=ON  PLU=ON  POLYETHYLENIMINE/CN
L20 (       1)SEA ABB=ON  PLU=ON  L18 AND L19
L21 (      12)SEA ABB=ON  PLU=ON  ETHYLENIMINE (L) SRU
L22 (       1)SEA ABB=ON  PLU=ON  L21 AND POLY IMINO
L23      2 SEA ABB=ON  PLU=ON  L20 OR L22
-----
L24      1 SEA ABB=ON  PLU=ON  106-89-8
-----
```

FILE 'CAPLUS' ENTERED AT 08:48:24 ON 23 JAN 2006

```
L25      1332126 SEA ABB=ON  PLU=ON  L12
      E TRANSITION METAL/CT
      E TRANSITION METALS/CT
L26      50907 SEA ABB=ON  PLU=ON  TRANSITION METALS/CW
L27      11142 SEA ABB=ON  PLU=ON  L23 OR L15 OR POLYETHYLENEIMINE?/OBI OR
      POLYPROPLYENEIMINE#/OBI
L28      11225 SEA ABB=ON  PLU=ON  L27 OR POLYETHYLENIMINE?/OBI OR POLYPROPYL
      ENIMINE?/OBI
L29      11225 SEA ABB=ON  PLU=ON  L27 OR  L28
L30      782 SEA ABB=ON  PLU=ON  POLYDENTAT?/OBI
L31      12006 SEA ABB=ON  PLU=ON  L29 OR L30
L32      23 SEA ABB=ON  PLU=ON  L31 (L) L26
L33      111 SEA ABB=ON  PLU=ON  L25 (L) L31
L34      123 SEA ABB=ON  PLU=ON  L32 OR L33
L35      43668 SEA ABB=ON  PLU=ON  ODOR?/OBI
L36      1 SEA ABB=ON  PLU=ON  L35 AND  L34
      D SCAN
L37      24400 SEA ABB=ON  PLU=ON  DEODOR?/OBI
L38      1 SEA ABB=ON  PLU=ON  L37 AND L34
```

## E COORDINATION COMPOUNDS/CT

L39 14689 SEA ABB=ON PLU=ON COORDINATION COMPOUNDS/OBI  
 L40 69 SEA ABB=ON PLU=ON L39 AND L31  
 L41 37 SEA ABB=ON PLU=ON L40 AND (L25 OR METAL?/OBI)  
 L42 16 SEA ABB=ON PLU=ON L40 AND (L25 OR L26)  
 L43 114711 SEA ABB=ON PLU=ON (?ODOR?)/BI  
 L44 1 SEA ABB=ON PLU=ON L43 AND L34  
 L45 16 SEA ABB=ON PLU=ON L42 OR L44 OR L38 OR L36  
 L46 825379 SEA ABB=ON PLU=ON TEXTILE?/OBI OR FIBER?/OBI OR FIBRE?/OBI  
 OR FABRIC?/OBI  
 L47 4 SEA ABB=ON PLU=ON L34 AND L46  
 D SCA TI  
 L48 1 SEA ABB=ON PLU=ON L34 AND 62/SC,SX  
 L49 19 SEA ABB=ON PLU=ON L48 OR L47 OR L45  
 L50 3818 SEA ABB=ON PLU=ON WU B?/AU  
 L51 204 SEA ABB=ON PLU=ON MCGRATH K?/AU  
 L52 41998 SEA ABB=ON PLU=ON KIM J?/AU  
 L53 104 SEA ABB=ON PLU=ON DO B?/AU  
 L54 497 SEA ABB=ON PLU=ON GREENE S?/AU  
 L55 16006 SEA ABB=ON PLU=ON HUANG Y?/AU  
 L56 4059 SEA ABB=ON PLU=ON YANG K?/AU  
 L57 66458 SEA ABB=ON PLU=ON (L50 OR L51 OR L52 OR L53 OR L54 OR L55 OR  
 L56)  
 L58 22 SEA ABB=ON PLU=ON L57 AND L39  
 L59 285 SEA ABB=ON PLU=ON L57 AND L43  
 L60 1 SEA ABB=ON PLU=ON L58 AND L59  
 L61 4434 SEA ABB=ON PLU=ON L46 AND L57  
 L62 39 SEA ABB=ON PLU=ON L31 AND L57  
 L63 3 SEA ABB=ON PLU=ON L62 AND (L39 OR L46 OR L43)  
 L64 2 SEA ABB=ON PLU=ON L63 NOT L49  
 D SCAN

FILE 'WPIDS' ENTERED AT 09:00:39 ON 23 JAN 2006

E WU B/AU  
 L65 772 SEA ABB=ON PLU=ON WU B?/AU  
 L66 64 SEA ABB=ON PLU=ON MCGRATH K?/AU  
 E KIM J/AU  
 L67 37633 SEA ABB=ON PLU=ON KIM J ?/AU  
 L68 0 SEA ABB=ON PLU=ON KIM JAEHO/AU  
 E BO D/AU  
 E DO B/AU  
 L69 13 SEA ABB=ON PLU=ON "DO B"/AU OR "DO BAO T"/AU  
 E GREENE S/AU  
 L70 40 SEA ABB=ON PLU=ON "GREENE S"/AU OR "GREENE S L"/AU  
 E HUANG Y/AU  
 L71 3308 SEA ABB=ON PLU=ON HUANG Y?/AU  
 E YANG K/AU  
 L72 1170 SEA ABB=ON PLU=ON YANG K?/AU  
 L73 42949 SEA ABB=ON PLU=ON (L65 OR L66 OR L67 OR L68 OR L69 OR L70 OR  
 L71 OR L72)  
 L74 19207 SEA ABB=ON PLU=ON ODOR?  
 L75 30104 SEA ABB=ON PLU=ON DEODOR?  
 L76 3338 SEA ABB=ON PLU=ON POLYDENTATE? OR POLYETHYLENEIMINE? OR  
 POLYETHYLENIMINE? OR POLYPROPYLENEIMINE? OR POLYPROPYLENIMINE#  
 L77 9872 SEA ABB=ON PLU=ON COORDINATION  
 L78 9080 SEA ABB=ON PLU=ON COORDINATED  
 L79 45383 SEA ABB=ON PLU=ON L74 OR L75  
 L80 3 SEA ABB=ON PLU=ON L79 AND L76 AND (L77 OR L78)  
 L81 29072 SEA ABB=ON PLU=ON TRANSITION METAL#  
 L82 1 SEA ABB=ON PLU=ON L81 AND L76 AND L79

Ernst Arnold 10/686,937

L83 3 SEA ABB=ON PLU=ON L80 OR L82  
L84 111 SEA ABB=ON PLU=ON L81 AND L76  
L85 25 SEA ABB=ON PLU=ON L84 AND (L77 OR L78)  
L86 790073 SEA ABB=ON PLU=ON FIBRE? OR FIBER? OR FABRIC? OR TEXTILE? OR  
DIAPER?  
L87 10 SEA ABB=ON PLU=ON L85 AND L86  
L88 12 SEA ABB=ON PLU=ON L87 OR L83  
L89 9 SEA ABB=ON PLU=ON L73 AND L76  
L90 196 SEA ABB=ON PLU=ON L73 AND L79  
L91 1 SEA ABB=ON PLU=ON L90 AND (L77 OR L78)  
L92 5 SEA ABB=ON PLU=ON L90 AND L81  
L93 13 SEA ABB=ON PLU=ON L89 OR L92  
L94 12 SEA ABB=ON PLU=ON L93 NOT (L87 OR L83)

FILE 'CAPLUS, WPIDS' ENTERED AT 09:11:25 ON 23 JAN 2006

L95 27 DUP REM L42 L83 L88 (4 DUPLICATES REMOVED)  
ANSWERS '1-16' FROM FILE CAPLUS  
ANSWERS '17-27' FROM FILE WPIDS  
L96 14 DUP REM L64 L94 (0 DUPLICATES REMOVED)  
ANSWERS '1-2' FROM FILE CAPLUS  
ANSWERS '3-14' FROM FILE WPIDS

=> fil reg

FILE 'REGISTRY' ENTERED AT 09:11:55 ON 23 JAN 2006  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 22 JAN 2006 HIGHEST RN 872405-17-9  
DICTIONARY FILE UPDATES: 22 JAN 2006 HIGHEST RN 872405-17-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS  
for details.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d que l12; d rn cn l12 1-11

```

L1 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  IRON/CN
L2 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COBALT/CN
L3 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  NICKEL/CN
L4 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L5 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SILVER/CN
L6 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GOLD/CN
L7 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  MANGANESE/CN
L8 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  CHROMIUM/CN
L9 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VANADIUM/CN
L10 (     1)SEA FILE=REGISTRY ABB=ON  PLU=ON  TITANIUM/CN
L11 (     1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SCANDIUM/CN
L12      11 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5
      OR L6 OR L7 OR L8 OR L9 OR L10 OR L11)

```

L12 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-66-6 REGISTRY

CN **Zinc (7CI, 8CI, 9CI)** (CA INDEX NAME)

OTHER NAMES:

```

CN 3-13L
CN AN 325
CN Asarco L 15
CN Blue powder
CN Ecka 4
CN F 1000
CN F 1000 (metal)
CN F 1500T
CN F 2000
CN F 2000 (metal)
CN LS 2
CN LS 2 (element)
CN LS 30
CN LS 4
CN LS 5
CN LS 5 (metal)
CN MCS
CN MCS (metal)
CN MS 10
CN MS 10 (metal)
CN NC-Zinc
CN PTzR 4
CN Rheinzink
CN RZN11-1
CN SK 2
CN SK 2 (metal)
CN Stapa TE Zinc AT
CN Tc 8
CN Tc 8 (metal)
CN UF
CN UF (metal)
CN VM 4P16
CN Z 620
CN Zinc Dust 3

```

L12 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-62-2 REGISTRY  
CN **Vanadium (8CI, 9CI)** (CA INDEX NAME)  
OTHER NAMES:  
CN Atomic vanadium  
CN Vanadium element  
CN Vanadium fulleride (VC20)  
CN Vanadium-51

L12 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-57-5 REGISTRY  
CN **Gold (8CI, 9CI)** (CA INDEX NAME)  
OTHER NAMES:  
CN A 4631  
CN A 4953  
CN Au Net  
CN AY 5022  
CN Britecote  
CN Burnish Gold  
CN C.I. 77480  
CN C.I. Pigment Metal 3  
CN Colloidal gold

---

CN E 175  
CN Furuuchi 8560  
CN G 1402  
CN Gold 197  
CN Gold black  
CN Gold element  
CN Gold Flake  
CN Gold Leaf  
CN Gold Powder  
CN Palegold 5550  
CN Perfect Gold  
CN PH 870  
CN Powdersafe 1785-01  
CN Powdersafe 1790-01  
CN SG 10NK  
CN Shell Gold  
CN Technic 504  
CN TR 1306

L12 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-48-4 REGISTRY  
CN **Cobalt (8CI, 9CI)** (CA INDEX NAME)  
OTHER NAMES:  
CN ACO 4  
CN C.I. 77320  
CN Co 0138E  
CN Cobalt element  
CN Cobalt-59  
CN N 354Di  
CN R 401  
CN R 401 (metal)

L12 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-47-3 REGISTRY  
CN **Chromium (8CI, 9CI)** (CA INDEX NAME)  
OTHER NAMES:  
CN Alpaste RRA 030  
CN Alpaste RRA 050  
CN Chrome

CN Chromium element

L12 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-32-6 REGISTRY

CN **Titanium (8CI, 9CI)** (CA INDEX NAME)

OTHER NAMES:

CN Alpaste RTA 030

CN C.P. Titanium

CN DAT 1

CN DAT 5E

CN Dentcraft Titan Ingot

CN EBT

CN EBT (metal)

CN Elgard 210

CN M 350

CN M 350 (metal)

CN N 233

CN Smelloff-Cutter Titanium

CN TB 340

CN TC 459

CN TG-Tv

CN Timet 115

CN Titan 100

CN Titan 20A

CN Titanium element

CN Titanium fulleride (TiC<sub>20</sub>)

CN Tiunite

CN TP 270H

CN TPS 350

CN TR 28C

CN Tritan Til/31

CN Tritanium

CN TW 340

CN Ventron 00901

L12 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-22-4 REGISTRY

CN **Silver (8CI, 9CI)** (CA INDEX NAME)

OTHER NAMES:

CN 11000SP

CN 1520D

CN 15ED001

CN 15ED173

CN 3050HD

CN 3200HD

CN 39: PN: WO2005010031 SEQID: 39 claimed protein

CN 6142D

CN 7000C

CN 7000ID

CN AA 0101

CN Ag 1T

CN Ag 3010

CN AG 5-7A

CN Ag-C-GS

CN AG-CO

CN Ag-E 100

CN Ag-E 350

CN AgC 1561

CN AgC 156I

CN AgC 209

CN AgC 2190  
 CN AgC 237  
 CN AgC 239  
 CN AgC 251  
 CN AgC 401  
 CN AgC-A  
 CN AgC-D  
 CN AGF 20S  
 CN AgF 5S  
 CN AGS-WP 001  
 CN AgXF 301H  
 CN Algaedyn  
 CN Argentum  
 CN Astroflake 5  
 CN AX 10C  
 CN AY 6010  
 CN AY 6080  
 CN C 0083P  
 CN C 200  
 CN C 200 (metal)  
 CN C.I. 77820  
 CN Carey Lea silver  
 CN CM-NX 003  
 CN Colloidal silver  
 CN CW 7100  
 CN D 25  
 CN D 25 (metal)  
 CN Degussa 67  
 CN Degussa 80

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for  
 DISPLAY

L12 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-20-2 REGISTRY

CN **Scandium (8CI, 9CI)** (CA INDEX NAME)

OTHER NAMES:

CN Scandium element

CN Scandium-45

L12 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN

RN 7440-02-0 REGISTRY

CN **Nickel (8CI, 9CI)** (CA INDEX NAME)

OTHER NAMES:

CN 2020SS

CN Alcan 756

CN B 113W

CN C.I. 77775

CN Carbonyl 255

CN Carbonyl Ni 123

CN Carbonyl Ni 283

CN Carbonyl nickel

CN Carbonyl Nickel 123

CN Carbonyl Nickel 283

CN Carbonyl Nickel 287

CN Celmet

CN Celmet 4

CN Cerac N 2003

CN CHT

CN CNS 10 Micron

CN DNI 20

CN E 12  
 CN E 12 (metal)  
 CN Exmet 4 Ni X-4/0  
 CN Fibrex  
 CN Fibrex (metal fiber)  
 CN Fibrex P  
 CN Fibrex P (metal)  
 CN Fukuda 287  
 CN Incofoam  
 CN N 1  
 CN N 1000  
 CN N 1000 (metal)  
 CN N 100ES  
 CN N 154  
 CN NDHT 90  
 CN NDT 60  
 CN NDT 65  
 CN NDT 90  
 CN NI 123  
 CN Ni 210  
 CN NI 255AC  
 CN NI 287  
 CN Ni 4303T  
 CN Ni-Flake 95  
 CN Nickel element  
 CN Microbraz LM:BNi 2  
 CN NiFL  
 CN NiFW  
 CN Nikko 255  
 CN NOT 90  
 CN Novamet 4SP  
 CN Novamet 4SP10  
 CN Novamet 525

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for  
 DISPLAY

L12 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 7439-96-5 REGISTRY  
 CN **Manganese (8CI, 9CI)** (CA INDEX NAME)  
 OTHER NAMES:  
 CN Colloidal manganese  
 CN Cutaval  
 CN JIS-G 1213  
 CN Manganese element  
 CN Manganese fulleride (MnC20)  
 CN Manganese-55

L12 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 7439-89-6 REGISTRY  
 CN **Iron (7CI, 8CI, 9CI)** (CA INDEX NAME)  
 OTHER NAMES:  
 CN 300A  
 CN 3ZhP  
 CN A 131  
 CN A 227  
 CN AC 325  
 CN Ancor B  
 CN Ancor EN 80/150  
 CN Ancor Image 100  
 CN AQ 80



CN Armco 80  
 CN Armco iron  
 CN ASC 300  
 CN ASC 300 (metal)  
 CN Atomel 300M200  
 CN Atomel 500M  
 CN Atomet 28  
 CN Atomet 67  
 CN Atomet 95  
 CN Atomet 95G  
 CN Atomet 95SP  
 CN Atomiron 44MR  
 CN Atomiron 5M  
 CN Atomiron AFP 25  
 CN Atomiron AFP 5  
 CN ATW 230  
 CN ATW 432  
 CN BASF-EW  
 CN Carbon 0.17, iron 99.83 (atomic)  
 CN Carbonyl iron  
 CN Carbonyl iron powder HQ  
 CN Carbonyl iron powder SU  
 CN CM  
 CN CM (iron)  
 CN Copy Powder CS 105-175  
 CN DH  
 CN DKP  
 CN DKP (metal)  
 CN DM 96  
 CN DM 96 (iron)  
 CN DNK 2R  
 CN DSP 1000  
 CN DSP 128B  
 CN DSP 135  
 CN DSP 135C  
 CN DSP 138  
 CN EF 1000  
 CN EF 250  
 CN EFV  
 CN EFV 200/300  
 CN EFV 250

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for  
 DISPLAY

=> d que l15;d l15 rn cn 1-2

L13 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON 25037-42-7  
 L14 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON 32290-92-9  
 L15 2 SEA FILE=REGISTRY ABB=ON PLU=ON L13 OR L14

L15 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 32290-92-9 REGISTRY  
 CN Poly[imino(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Poly(iminopropylene) (8CI)  
 OTHER NAMES:  
 CN Poly(2-methylaziridine), SRU

CN Poly(methylaziridine), SRU  
 CN Polypropyleneimine  
 CN Polypropylenimine

L15 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 25037-42-7 REGISTRY  
 CN Aziridine, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Aziridine, 2-methyl-, polymers (8CI)  
 OTHER NAMES:  
 CN 2-Methylaziridine polymer  
 CN Poly(2-methylaziridine)  
 CN Poly(propylenimine)  
 CN Polypropyleneimine  
 CN Propylenimine polymer

=> d que l23; d rn cn l23 1-2

L16 ( 1653)SEA FILE=REGISTRY ABB=ON PLU=ON 151-56-4/CRN  
 L17 ( 1535)SEA FILE=REGISTRY ABB=ON PLU=ON L16 AND POLY?  
 L18 ( 4)SEA FILE=REGISTRY ABB=ON PLU=ON L17 AND 1=NC  
 L19 ( 2)SEA FILE=REGISTRY ABB=ON PLU=ON POLYETHYLENIMINE/CN  
 L20 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON L18 AND L19  
 L21 ( 12)SEA FILE=REGISTRY ABB=ON PLU=ON ETHYLENIMINE (L) SRU  
 L22 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON L21 AND POLY IMINO  
 L23 2 SEA FILE=REGISTRY ABB=ON PLU=ON L20 OR L22

L23 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 26913-06-4 REGISTRY  
 CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Poly(iminoethylene) (8CI)  
 OTHER NAMES:  
 CN Linear polyethylenimine  
 CN Polyethylenimine  
 CN Polyethylenimine, sru

L23 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 9002-98-6 REGISTRY  
 CN Aziridine, homopolymer (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Ethylenimine, polymers (8CI)  
 OTHER NAMES:  
 CN 15T  
 CN 210T  
 CN 2MB  
 CN A 131X  
 CN AC 871  
 CN Adcote 372  
 CN Aziridine polymer  
 CN Basocoll PR 8086  
 CN Basonal White FO 1  
 CN Bufloc 595  
 CN CF 218  
 CN CF 218 (polymer)  
 CN Corcat P 100  
 CN Corcat P 12

CN Corcat P 145  
 CN Corcat P 150  
 CN Corcat P 18  
 CN Corcat P 200  
 CN Corcat P 600  
 CN Duramax 1007  
 CN EA 275  
 CN EL 402  
 CN EL 420  
 CN Emerlube 6717  
 CN Epomin  
 CN Epomin 1000  
 CN Epomin 1050  
 CN Epomin 150T  
 CN Epomin D 3000  
 CN Epomin P 003  
 CN Epomin P 012  
 CN Epomin P 1000  
 CN Epomin P 1030  
 CN Epomin P 1050  
 CN Epomin P 1500  
 CN Epomin P 200  
 CN Epomin P 500  
 CN Epomin SP 003  
 CN Epomin SP 006  
 CN Epomin SP 012  
 CN Epomin SP 012D  
 CN Epomin SP 018  
 CN Epomin SP 1000  
 CN Epomin SP 103  
 CN Epomin SP 110  
 CN Epomin SP 200  
 CN Epomin SP 300  
 CN Ethyleneimine homopolymer  
 CN Ethylenimine homopolymer  
 CN P 100 (polyamine)  
 CN P 70 (polyamine)  
 CN Polyaziridine  
 CN Polyethenimide  
 CN Polyethylenimine  
 CN Polymin 6  
 CN Polymin FL  
 CN Polymin G 100  
 CN Polymin G 15M  
 CN Polymin G 20  
 CN Polymin G 35  
 CN Polymin G 500  
 CN Polymin HS  
 CN Polymin PR 9711  
 CN Polymin PR 971L  
 CN Polymin SKA  
 CN Polymin SNA  
 CN Polymin Waterfree  
 CN Polymin WF  
 CN SP 400 (polyimine)  
 CN UP 300 (polyamine)

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

=> fil caplus wpids

FILE 'CAPLUS' ENTERED AT 09:12:53 ON 23 JAN 2006

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FILE 'WPIDS' ENTERED AT 09:12:53 ON 23 JAN 2006

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=> d que 195

```

L1 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  IRON/CN
L2 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COBALT/CN
L3 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  NICKEL/CN
L4 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L5 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SILVER/CN
L6 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GOLD/CN
L7 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  MANGANESE/CN
L8 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  CHROMIUM/CN
L9 (      1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VANADIUM/CN
L10 (     1)SEA FILE=REGISTRY ABB=ON  PLU=ON  TITANIUM/CN
L11 (     1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SCANDIUM/CN
L12      11 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5
      OR L6 OR L7 OR L8 OR L9 OR L10 OR L11)
L13 (     1)SEA FILE=REGISTRY ABB=ON  PLU=ON  25037-42-7
L14 (     1)SEA FILE=REGISTRY ABB=ON  PLU=ON  32290-92-9
L15      2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L13 OR L14
L16 (    1653)SEA FILE=REGISTRY ABB=ON  PLU=ON  151-56-4/CRN
L17 (    1535)SEA FILE=REGISTRY ABB=ON  PLU=ON  L16 AND POLY?
L18 (      4)SEA FILE=REGISTRY ABB=ON  PLU=ON  L17 AND 1=NC
L19 (      2)SEA FILE=REGISTRY ABB=ON  PLU=ON  POLYETHYLENIMINE/CN
L20 (     1)SEA FILE=REGISTRY ABB=ON  PLU=ON  L18 AND L19
L21 (     12)SEA FILE=REGISTRY ABB=ON  PLU=ON  ETHYLENIMINE (L) SRU
L22 (     1)SEA FILE=REGISTRY ABB=ON  PLU=ON  L21 AND POLY IMINO
L23      2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L20 OR L22
L25    1332126 SEA FILE=CAPLUS ABB=ON  PLU=ON  L12
L26      50907 SEA FILE=CAPLUS ABB=ON  PLU=ON  TRANSITION METALS/CW
L27      11142 SEA FILE=CAPLUS ABB=ON  PLU=ON  L23 OR L15 OR POLYETHYLENEIMINE
      ?/OBI OR POLYPROPLYENEIMINE#/OBI
L28      11225 SEA FILE=CAPLUS ABB=ON  PLU=ON  L27 OR POLYETHYLENIMINE?/OBI
      OR POLYPROPYLENIMINE?/OBI
L29      11225 SEA FILE=CAPLUS ABB=ON  PLU=ON  L27 OR L28
L30      782 SEA FILE=CAPLUS ABB=ON  PLU=ON  POLYDENTAT?/OBI
L31     12006 SEA FILE=CAPLUS ABB=ON  PLU=ON  L29 OR L30
L39     14689 SEA FILE=CAPLUS ABB=ON  PLU=ON  COORDINATION COMPOUNDS/OBI
L40      69 SEA FILE=CAPLUS ABB=ON  PLU=ON  L39 AND L31
L42      16 SEA FILE=CAPLUS ABB=ON  PLU=ON  L40 AND (L25 OR L26)
L74     19207 SEA FILE=WPIDS ABB=ON  PLU=ON  ODOR?
L75     30104 SEA FILE=WPIDS ABB=ON  PLU=ON  DEODOR?
L76     3338 SEA FILE=WPIDS ABB=ON  PLU=ON  POLYDENTATE? OR POLYETHYLENEIMIN
      E? OR POLYETHYLENIMINE? OR POLYPROPYLENEIMINE? OR POLYPROPYLENI
      MINE#
L77      9872 SEA FILE=WPIDS ABB=ON  PLU=ON  COORDINATION
L78      9080 SEA FILE=WPIDS ABB=ON  PLU=ON  COORDINATED
L79     45383 SEA FILE=WPIDS ABB=ON  PLU=ON  L74 OR L75
L80      3 SEA FILE=WPIDS ABB=ON  PLU=ON  L79 AND L76 AND (L77 OR L78)
L81     29072 SEA FILE=WPIDS ABB=ON  PLU=ON  TRANSITION METAL#
L82      1 SEA FILE=WPIDS ABB=ON  PLU=ON  L81 AND L76 AND L79
L83      3 SEA FILE=WPIDS ABB=ON  PLU=ON  L80 OR L82
L84     111 SEA FILE=WPIDS ABB=ON  PLU=ON  L81 AND L76
L85     25 SEA FILE=WPIDS ABB=ON  PLU=ON  L84 AND (L77 OR L78)

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L86 790073 SEA FILE=WPIDS ABB=ON PLU=ON FIBRE? OR FIBER? OR FABRIC? OR  
 TEXTILE? OR DIAPER?  
 L87 10 SEA FILE=WPIDS ABB=ON PLU=ON L85 AND L86  
 L88 12 SEA FILE=WPIDS ABB=ON PLU=ON L87 OR L83  
 L95 27 DUP REM L42 L83 L88 (4 DUPLICATES REMOVED)

=> d que 196

L1 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON IRON/CN  
 L2 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON COBALT/CN  
 L3 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON NICKEL/CN  
 L4 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON ZINC/CN  
 L5 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON SILVER/CN  
 L6 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON GOLD/CN  
 L7 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON MANGANESE/CN  
 L8 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON CHROMIUM/CN  
 L9 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON VANADIUM/CN  
 L10 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON TITANIUM/CN  
 L11 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON SCANDIUM/CN  
 L12 11 SEA FILE=REGISTRY ABB=ON PLU=ON (L1 OR L2 OR L3 OR L4 OR L5  
 OR L6 OR L7 OR L8 OR L9 OR L10 OR L11)  
 L13 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON 25037-42-7  
 L14 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON 32290-92-9  
 L15 2 SEA FILE=REGISTRY ABB=ON PLU=ON L13 OR L14  
 L16 ( 1653)SEA FILE=REGISTRY ABB=ON PLU=ON 151-56-4/CRN  
 L17 ( 1535)SEA FILE=REGISTRY ABB=ON PLU=ON L16 AND POLY?  
 L18 ( 4)SEA FILE=REGISTRY ABB=ON PLU=ON L17 AND 1=NC  
 L19 ( 2)SEA FILE=REGISTRY ABB=ON PLU=ON POLYETHYLENIMINE/CN  
 L20 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON L18 AND L19  
 L21 ( 12)SEA FILE=REGISTRY ABB=ON PLU=ON ETHYLENIMINE (L) SRU  
 L22 ( 1)SEA FILE=REGISTRY ABB=ON PLU=ON L21 AND POLY IMINO  
 L23 2 SEA FILE=REGISTRY ABB=ON PLU=ON L20 OR L22  
 L25 1332126 SEA FILE=CAPLUS ABB=ON PLU=ON L12  
 L26 50907 SEA FILE=CAPLUS ABB=ON PLU=ON TRANSITION METALS/CW  
 L27 11142 SEA FILE=CAPLUS ABB=ON PLU=ON L23 OR L15 OR POLYETHYLENEIMINE  
 ?/OBI OR POLYPROPLYENEIMINE#/OBI  
 L28 11225 SEA FILE=CAPLUS ABB=ON PLU=ON L27 OR POLYETHYLENIMINE?/OBI  
 OR POLYPROPYLENIMINE?/OBI  
 L29 11225 SEA FILE=CAPLUS ABB=ON PLU=ON L27 OR L28  
 L30 782 SEA FILE=CAPLUS ABB=ON PLU=ON POLYDENTAT?/OBI  
 L31 12006 SEA FILE=CAPLUS ABB=ON PLU=ON L29 OR L30  
 L32 23 SEA FILE=CAPLUS ABB=ON PLU=ON L31 (L) L26  
 L33 111 SEA FILE=CAPLUS ABB=ON PLU=ON L25 (L) L31  
 L34 123 SEA FILE=CAPLUS ABB=ON PLU=ON L32 OR L33  
 L35 43668 SEA FILE=CAPLUS ABB=ON PLU=ON ODOR?/OBI  
 L36 1 SEA FILE=CAPLUS ABB=ON PLU=ON L35 AND L34  
 L37 24400 SEA FILE=CAPLUS ABB=ON PLU=ON DEODOR?/OBI  
 L38 1 SEA FILE=CAPLUS ABB=ON PLU=ON L37 AND L34  
 L39 14689 SEA FILE=CAPLUS ABB=ON PLU=ON COORDINATION COMPOUNDS/OBI  
 L40 69 SEA FILE=CAPLUS ABB=ON PLU=ON L39 AND L31  
 L42 16 SEA FILE=CAPLUS ABB=ON PLU=ON L40 AND (L25 OR L26)  
 L43 114711 SEA FILE=CAPLUS ABB=ON PLU=ON (?ODOR?)/BI  
 L44 1 SEA FILE=CAPLUS ABB=ON PLU=ON L43 AND L34  
 L45 16 SEA FILE=CAPLUS ABB=ON PLU=ON L42 OR L44 OR L38 OR L36  
 L46 825379 SEA FILE=CAPLUS ABB=ON PLU=ON TEXTILE?/OBI OR FIBER?/OBI OR  
 FIBRE?/OBI OR FABRIC?/OBI  
 L47 4 SEA FILE=CAPLUS ABB=ON PLU=ON L34 AND L46  
 L48 1 SEA FILE=CAPLUS ABB=ON PLU=ON L34 AND 62/SC, SX  
 L49 19 SEA FILE=CAPLUS ABB=ON PLU=ON L48 OR L47 OR L45  
 L50 3818 SEA FILE=CAPLUS ABB=ON PLU=ON WU B?/AU

L51 204 SEA FILE=CAPLUS ABB=ON PLU=ON MCGRATH K?/AU  
 L52 41998 SEA FILE=CAPLUS ABB=ON PLU=ON KIM J?/AU  
 L53 104 SEA FILE=CAPLUS ABB=ON PLU=ON DO B?/AU  
 L54 497 SEA FILE=CAPLUS ABB=ON PLU=ON GREENE S?/AU  
 L55 16006 SEA FILE=CAPLUS ABB=ON PLU=ON HUANG Y?/AU  
 L56 4059 SEA FILE=CAPLUS ABB=ON PLU=ON YANG K?/AU  
 L57 66458 SEA FILE=CAPLUS ABB=ON PLU=ON (L50 OR L51 OR L52 OR L53 OR  
 L54 OR L55 OR L56)  
 L62 39 SEA FILE=CAPLUS ABB=ON PLU=ON L31 AND L57  
 L63 3 SEA FILE=CAPLUS ABB=ON PLU=ON L62 AND (L39 OR L46 OR L43)  
 L64 2 SEA FILE=CAPLUS ABB=ON PLU=ON L63 NOT L49  
 L65 772 SEA FILE=WPIDS ABB=ON PLU=ON WU B?/AU  
 L66 64 SEA FILE=WPIDS ABB=ON PLU=ON MCGRATH K?/AU  
 L67 37633 SEA FILE=WPIDS ABB=ON PLU=ON KIM J ?/AU  
 L68 0 SEA FILE=WPIDS ABB=ON PLU=ON KIM JAEHO/AU  
 L69 13 SEA FILE=WPIDS ABB=ON PLU=ON "DO B"/AU OR "DO BAO T"/AU  
 L70 40 SEA FILE=WPIDS ABB=ON PLU=ON "GREENE S"/AU OR "GREENE S  
 L"/AU  
 L71 3308 SEA FILE=WPIDS ABB=ON PLU=ON HUANG Y?/AU  
 L72 1170 SEA FILE=WPIDS ABB=ON PLU=ON YANG K?/AU  
 L73 42949 SEA FILE=WPIDS ABB=ON PLU=ON (L65 OR L66 OR L67 OR L68 OR  
 L69 OR L70 OR L71 OR L72)  
 L74 19207 SEA FILE=WPIDS ABB=ON PLU=ON ODOR?  
 L75 30104 SEA FILE=WPIDS ABB=ON PLU=ON DEODOR?  
 L76 3338 SEA FILE=WPIDS ABB=ON PLU=ON POLYDENTATE? OR POLYETHYLENEIMIN  
 E? OR POLYETHYLENIMINE? OR POLYPROPYLENEIMINE? OR POLYPROPYLENI  
 MINE#  
 L77 9872 SEA FILE=WPIDS ABB=ON PLU=ON COORDINATION  
 L78 9080 SEA FILE=WPIDS ABB=ON PLU=ON COORDINATED  
 L79 45383 SEA FILE=WPIDS ABB=ON PLU=ON L74 OR L75  
 L80 3 SEA FILE=WPIDS ABB=ON PLU=ON L79 AND L76 AND (L77 OR L78)  
 L81 29072 SEA FILE=WPIDS ABB=ON PLU=ON TRANSITION METAL#  
 L82 1 SEA FILE=WPIDS ABB=ON PLU=ON L81 AND L76 AND L79  
 L83 3 SEA FILE=WPIDS ABB=ON PLU=ON L80 OR L82  
 L84 111 SEA FILE=WPIDS ABB=ON PLU=ON L81 AND L76  
 L85 25 SEA FILE=WPIDS ABB=ON PLU=ON L84 AND (L77 OR L78)  
 L86 790073 SEA FILE=WPIDS ABB=ON PLU=ON FIBRE? OR FIBER? OR FABRIC? OR  
 TEXTILE? OR DIAPER?  
 L87 10 SEA FILE=WPIDS ABB=ON PLU=ON L85 AND L86  
 L89 9 SEA FILE=WPIDS ABB=ON PLU=ON L73 AND L76  
 L90 196 SEA FILE=WPIDS ABB=ON PLU=ON L73 AND L79  
 L92 5 SEA FILE=WPIDS ABB=ON PLU=ON L90 AND L81  
 L93 13 SEA FILE=WPIDS ABB=ON PLU=ON L89 OR L92  
 L94 12 SEA FILE=WPIDS ABB=ON PLU=ON L93 NOT (L87 OR L83)  
 L96 14 DUP REM L64 L94 (0 DUPLICATES REMOVED)

=> d .ca 195 1-16; d .wp 195 17-27;d ibib ab 196 1-14

L95 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:348809 CAPLUS

DOCUMENT NUMBER: 142:378939

TITLE: Method for reducing odor using coordinated  
**polydentate** compounds

INVENTOR(S): Wu, Bin; Mcgrath, Kevin P.; Kim, Jaeho; Do, Bao Trong;  
 Greene, Sharon Linda; Huang, Yanbin; Yang, Kaiyuan

PATENT ASSIGNEE(S): Kimberly-Clark Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005084474	A1	20050421	US 2003-686937	20031016
WO 2005039661	A1	20050506	WO 2004-US11596	20040414

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-686937 A 20031016

ED Entered STN: 22 Apr 2005

AB A method for reducing odor is provided. The method comprises forming a coordination complex between a transition metal and a polydentate compound, and contacting the coordinated complex with an odorous compound. The transition metal provides one or more active sites for capturing the odorous compound. In some embodiments, the polydentate compound may be a polyalkylimine, such as polyethyleneimine, polypropyleneimine, or a dendrimer thereof. A polyethyleneimine solution was initially prepared by dissolving 3.3 g of branched polyethyleneimine in 900 mL of deionized water. Thereafter, 335 mg of copper chloride was added to the polyethyleneimine solution. Upon addition of copper chloride, the solution turned

deep blue, indicating the formation of a coordination complex. A piece of a Scott paper towel was then immersed in the solution for 1 min and allowed to dry in air. The solids add-on level was 5.8%. The product was tested for odor adsorption using 1 µL of Et mercaptan (0.839 mg). The % odor reduction was determined to be 85.4%. In a parallel test, a control sample (piece of untreated Scott paper towel) reduced only 11.0% odor.

IC ICM A61K007-04

ICS A61L009-00; A61L009-01

INCL 424076100

CC 62-4 (Essential Oils and Cosmetics)

ST odor redn coordinated **polydentate** complex transition metal; deodorant **polyethyleneimine** copper chloride

IT Fibers

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (cellulosic; method for reducing odor using coordinated **polydentate** compds.)

IT **Transition metals**, biological studies

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (coordination complexes with polyalkylamines; method for reducing odor using coordinated **polydentate** compds.)

IT Epoxy resins, biological studies

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (coordination complexes with transition metals; method for reducing odor using coordinated **polydentate** compds.)

IT Deodorants

Nonwoven fabrics  
Odor and Odorous substances  
Paper  
Particle size  
Particles  
Textiles  
(method for reducing odor using coordinated **polydentate** compds.)

IT **Coordination compounds**

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(method for reducing odor using coordinated **polydentate** compds.)

IT Aldehydes, uses

Amines, uses

Carboxylic acids, uses

Ketones, uses

Sulfides, uses

Terpenes, uses

Thiols, uses

RL: NUU (Other use, unclassified); USES (Uses)

(method for reducing odor using coordinated **polydentate** compds.)

IT Ligands

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(multidentate, coordination complexes with transition metals; method for reducing odor using coordinated **polydentate** compds.)

IT Zeta potential

(neg.; method for reducing odor using coordinated **polydentate** compds.)

IT Aldehydes, biological studies

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(polyfunctional, coordination complexes with transition metals; method for reducing odor using coordinated **polydentate** compds.)

IT Imines

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(polyimines, alkyl derivs., coordination complexes with transition metals; method for reducing odor using coordinated **polydentate** compds.)

IT Ligands

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(pos. charged, coordination complexes with polyalkylimines; method for reducing odor using coordinated **polydentate** compds.)

IT 1344-28-1, Alumina, biological studies 7631-86-9, Silica, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(method for reducing odor using coordinated **polydentate** compds.)

IT 75-13-8DP, Isocyanic acid, esters, polymers, coordination complexes with transition metals 106-89-8DP, Epichlorohydrin, coordination complexes with transition metals 1344-67-8DP, Copper chloride, coordination complexes with polyalkylimines 7439-89-6DP, Iron, coordination complexes with polyalkylimines 7439-96-5DP, Manganese, coordination complexes with polyalkylimines 7440-02-0DP, Nickel, coordination complexes with polyalkylimines 7440-20-2DP, Scandium, coordination complexes with **polydentate** compd



7440-22-4DP, Silver, coordination complexes with polyalkylimines  
 7440-32-6DP, Titanium, coordination complexes with polyalkylimines  
 7440-47-3DP, Chromium, coordination complexes with polyalkylimines  
 7440-48-4DP, Cobalt, coordination complexes with polyalkylimines  
 7440-50-8DP, Copper, coordination complexes with polyalkylimines  
 7440-57-5DP, Gold, coordination complexes with polyalkylimines  
 7440-62-2DP, Vanadium, coordination complexes with polyalkylimines  
 7440-66-6DP, Zinc, coordination complexes with polyalkylimines  
 7705-08-0DP, Ferric chloride, coordination complexes with  
 polydentate compd 7733-02-0DP, Zinc sulfate, coordination  
 complexes with polydentate compd 9002-98-6DP,  
 coordination complexes with transition metals 22199-08-2DP, Silver  
 sulfadiazine, coordination complexes with polydentate compd  
 25037-42-7DP, Polypropyleneimine, coordination complexes with  
 transition metals 26913-06-4DP, Poly[imino(1,2-ethanediyl)],  
 coordination complexes with transition metals 32290-92-9DP,  
 Polypropyleneimine, coordination complexes with transition metals  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological  
 study); PREP (Preparation); USES (Uses)

(method for reducing odor using coordinated polydentate  
 compds.)

IT 110-86-1, Pyridine, uses 111-71-7, Heptanal 7664-41-7, Ammonia, uses  
 25917-35-5, Hexanol

RL: NUU (Other use, unclassified); USES (Uses)

(method for reducing odor using coordinated polydentate  
 compds.)

L95 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:641826 CAPLUS

DOCUMENT NUMBER: 143:156038

TITLE: Methods of using sealants in multilateral junctions

INVENTOR(S): Eoff, Larry S.; Everett, Don M.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005159319	A1	20050721	US 2004-759676	20040116
PRIORITY APPLN. INFO.:			US 2004-759676	20040116

ED Entered STN: 22 Jul 2005

AB The present invention relates to the completion of subterranean well bores in a multilateral well system. More particularly, this invention relates to the sealing of junctions between lateral well bores and a parent well bore. The sealants used in accordance with the methods of the present invention generally comprise any sealing composition which can be placed within a reservoir, and injected a sufficient distance into a region of the formation surrounding a junction between a 1st well bore and a 2nd well bore in fluid communication with the 1st well bore, so as to prevent the undesired entry of formation fluids into either well bore in the region surrounding the junction.

IC ICM E21B033-00

INCL 507225000; 507219000; 507224000

CC 51-2 (Fossil Fuels, Derivatives, and Related Products)

Section cross-reference(s): 38, 39

IT Coordination compounds

Halides

Polyamines

RL: TEM (Technical or engineered material use); USES (Uses)

(crosslinking agent; methods of using polymer and copolymer sealants in multilateral junctions)

IT 9002-98-6

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT

(Reactant or reagent); USES (Uses)

(crosslinking agent; methods of using polymer and copolymer sealants in multilateral junctions)

IT 64-18-6, Formic acid, uses 64-19-7, Acetic acid, uses 76-03-9, Trichloroacetic acid, uses 79-52-7, 1,1,3-Trichlorotrifluoroacetone 85-42-7, Hexahydrophthalic anhydride 85-44-9, Phthalic anhydride 88-95-9, 1,2-Benzenedicarbonyl dichloride 89-32-7, Pyromellitic dianhydride 98-07-7, Benzotrichloride 98-87-3, Benzal chloride 98-88-4, Benzoyl chloride 100-44-7, Benzyl chloride, uses 101-77-9, Diaminodiphenylmethane 103-83-3, Benzyltrimethylamine 104-78-9 107-15-3, Ethylenediamine, uses 108-31-6, Maleic anhydride, uses 108-45-2, m-Phenylenediamine, uses 109-55-7 110-89-4, Piperidine, uses 111-40-0, Diethylenetriamine 112-24-3, Triethylenetetramine 116-16-5, Hexachloroacetone 140-31-8, 1-Piperazineethanamine 627-63-4, Fumaryl chloride 694-83-7, 1,2-Diaminocyclohexane 1477-55-0, 1,3-Benzenedimethanamine 2855-13-2, Isophorone diamine 7647-01-0, Hydrochloric acid, uses 9002-98-6D, derivs. 26444-72-4, (Tris(dimethylamino)methyl)phenol 26590-20-5, Methyltetrahydrophthalic anhydride 28299-33-4, Imidazoline 31307-24-1, Methylbicyclo-[2,2,1]-5-heptene-2,3-dicarboxylic anhydride 59516-66-4, Oxalic anhydride 860309-87-1

RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(hardening agent; methods of using polymer and copolymer sealants in multilateral junctions)

IT 79-06-1D, Acrylamide, copolymers containing 79-10-7D, Acrylic acid, copolymers containing 79-39-0D, Methacrylamide, copolymers containing 79-41-4D, Methacrylic acid, copolymers containing 88-12-0D, acrylamide-containing and other copolymers containing 98-00-0D, Furfuryl alcohol, polymers containing 107-13-1D, Acrylonitrile, acrylamide-containing copolymers of 108-05-4D, Vinyl acetate, acrylamide-containing copolymers of 108-31-6D, Maleic anhydride, acrylamide-containing copolymers of 110-26-9D, Methylenebisacrylamide, copolymers containing 126-98-7D, Methyl acrylonitrile, acrylamide-containing copolymers of 818-61-1D, copolymers containing 868-77-9D, copolymers containing 923-02-4D, N-Hydroxymethylmethacrylamide, copolymers containing 924-42-5D, N-Hydroxymethylacrylamide, copolymers containing 1184-84-5D, Vinylsulfonic acid, copolymers containing 1746-03-8D, Vinylphosphonic acid, copolymers containing 2425-79-8D, 1,4-Butanediol diglycidyl ether, epoxy polymers containing 2680-03-7D, N,N-Dimethylacrylamide, copolymers containing 2867-47-2D, N,N-Dimethylaminoethyl methacrylate, copolymers containing 5165-97-9D, Sodium 2-acrylamido-2-methylpropanesulfonate, acrylamide-containing copolymers of 5205-93-6D, copolymers containing 7429-90-5, Aluminum, uses 7439-89-6, Iron, uses 7440-47-3, Chromium, uses 7440-67-7, Zirconium, uses 8062-15-5, Lignosulfonate 9000-01-5, Gum arabic 9000-07-1, Carrageenan 9000-30-0, Guar gum 9000-65-1, Tragacanth 9003-05-8, Polyacrylamide 9003-05-8D, Polyacrylamide, partially hydrolyzed 9004-34-6, Cellulose, uses 9004-35-7 9004-62-0, Hydroxyethylcellulose 9005-25-8, Starch, uses 9005-32-7D, Alginic acid, salts 9011-05-6, Urea-formaldehyde copolymer 9012-36-6, Agarose 9012-76-4, Chitosan 9012-76-4D, Chitosan, oxidized 9012-76-4D, Chitosan, salts 11138-66-2D, Xanthan gum, salts 15214-89-8D, 2-Acrylamido-2-methylpropanesulfonic acid, copolymers containing

15731-80-3D, copolymers containing 17557-23-2D, epoxy polymers containing 17831-71-9D, Tetraethylene glycol diacrylate, copolymers containing 21838-63-1D, copolymers containing 25104-18-1, Polylysine 25736-86-1D, Polyethylene glycol monomethacrylate, copolymers containing 26403-58-7D, Polyethylene glycol monoacrylate, copolymers containing 26914-43-2D, Vinylbenzenesulfonic acid, acrylamide-containing copolymers of 28497-59-8D, copolymers containing 28961-43-5D, Ethoxylated trimethylolpropane triacrylate, copolymers containing 29499-22-7, Vinylamine-vinyl alcohol copolymer 39420-45-6D, Polypropylene glycol monomethacrylate, copolymers containing 39464-87-4, Scleroglucan 40623-73-2, Acrylamide-2-acrylamido-2-methylpropanesulfonic acid copolymer 45155-43-9D, copolymers containing 50858-51-0D, Polypropylene glycol monoacrylate, copolymers containing 50986-11-3D, copolymers containing 51157-15-4D, copolymers containing 51410-72-1D, copolymers containing 51728-26-8D, Ethoxylated pentaerythritol tetraacrylate, copolymers containing 52174-50-2D, Glycerol diacrylate, copolymers containing 52408-84-1D, Propoxylated glycerol triacrylate, copolymers containing 53879-54-2D, Propoxylated trimethylolpropane triacrylate, copolymers containing 53879-55-3D, Propoxylated pentaerythritol tetraacrylate, copolymers containing 73282-68-5 82727-34-2D, Ethoxylated trimethylol propane trimethacrylate, copolymers containing 83383-93-1 86629-01-8D, copolymers containing 87352-76-9D, copolymers containing 101661-95-4D, Ethoxylated glycerol triacrylate, copolymers containing 103534-15-2D, copolymers containing 106282-16-0D, copolymers containing 110933-72-7 136154-27-3D, Propoxylated trimethylolpropane trimethacrylate, copolymers containing 136403-66-2D, copolymers containing 142309-33-9D, copolymers containing 145611-81-0D, copolymers containing 146246-76-6D, epoxy polymers containing 147835-33-4D, copolymers containing 179267-59-5 521064-17-5D, copolymers containing 849099-98-5D, copolymers containing 853053-99-3D, copolymers containing 860309-84-8D, copolymers containing 860309-85-9D, copolymers containing 860309-86-0D, copolymers containing  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (methods of using polymer and copolymer sealants in multilateral junctions)

L95 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:258652 CAPLUS

DOCUMENT NUMBER: 142:341089

TITLE: Device and process for fixing inorganic pollutants

INVENTOR(S): De Buzonniere, Amaury; Bispo, Isabelle

PATENT ASSIGNEE(S): Commissariat A L'energie Atomique, Fr.; Centre

National De La Recherche Scientifique CNRS;

Technicatome Societe Technique Pour L'energie Atomique

SOURCE: Fr. Demande, 48 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2859924	A1	20050325	FR 2003-50591	20030923
PRIORITY APPLN. INFO.:			FR 2003-50591	20030923

ED Entered STN: 25 Mar 2005

AB This invention concerns a device for fixation of mineral pollutants radioisotopes from wastewater and a process for production and use of this device, which comprises a solid support covered with a film of an anionic exchanging polymer to which an insol. metal hexacyanoferrate is fixed, forming a thin layer for the fixation the mineral pollutants. This device

is in the shape of a long cylindrical ring surrounding a central space which is open at one end for the introduction of the fluid to be treated and is closed at the other end, causing the fluid to run out in a longitudinal direction from the central space. The composite material lies in a radial direction from the long axis of the central space, toward the outside of the cylindrical ring.

IC ICM B01J045-00  
ICS B01J039-02; B01J041-04; B01J020-06; B01J020-32; B01J020-10;  
B01D015-04; G21F009-12

CC 60-3 (Waste Treatment and Disposal)  
Section cross-reference(s): 47, 71

IT **Coordination compounds**  
(anionic, removal of; device and process for fixing inorg. pollutants)

IT **9002-98-6D**, derivs. 28728-55-4, Polybrene  
RL: NUU (Other use, unclassified); USES (Uses)  
(as anion exchanger; device and process for fixing inorg. pollutants)

IT **7439-89-6**, Iron, processes 7440-18-8, Ruthenium, processes  
**7440-22-4**, Silver, processes 7440-28-0, Thallium, processes  
**7440-48-4**, Cobalt, processes  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); REM (Removal or disposal); PROC (Process)  
(particularly radioactive isotopes of; device and process for fixing inorg. pollutants)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L95 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:32411 CAPLUS

DOCUMENT NUMBER: 140:81525

TITLE: Waste treatment agent and waste treatment method for detoxicating heavy metals and harmful elements

INVENTOR(S): Mizoguchi, Katsuhisa; Shimizu, Takeshi; Hosoda, Kazuo

PATENT ASSIGNEE(S): Miyoshi Oil and Fat Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004008952	A2	20040115	JP 2002-167062	20020607
PRIORITY APPLN. INFO.:			JP 2002-167062	20020607

ED Entered STN: 15 Jan 2004

AB The waste treatment agent comprises functional groups capable of coordinating metals and of which some form salts with a reducing metal, e.g. Fe(II), Cu(I). Heavy metals, harmful elements, and/or their oxoanions in wastes, e.g. fly ashes, are detoxicated in the presence of water by adding the agent. Cr(VI), Se, As, Sb, Mo, V, Sn, W, Mn, Hg, B, P and the like, which are difficult to be made insol, can reliably be detoxicated without causing corrosion of treatment facilities.

IC ICM B09B003-00  
ICS B01D053-64; B01J020-22; B09C001-02; B09C001-08; C02F001-62;  
C02F011-00

CC 60-4 (Waste Treatment and Disposal)  
Section cross-reference(s): 54

IT **Coordination compounds**  
RL: NUU (Other use, unclassified); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

- (waste treatment agent; waste treatment agent for detoxification of heavy metals and harmful elements)
- IT 7720-78-7D, Ferrous sulfate, reaction with **coordination compds.**  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (treatment agent; waste treatment agent for detoxification of heavy metals and harmful elements)
- IT 79-45-8DP, Dimethyldithiocarbamic acid, iron(II) salt 110-89-4DP, Piperidine, reaction product with dithiocarbamic acid and ferrous salt 112-57-2DP, Tetraethylenepentamine, reaction product with dithiocarbamic acid and ferrous salt 147-84-2DP, Diethyldithiocarbamic acid, iron(II) salt 594-07-0DP, Dithiocarbamic acid, reaction product with dithiocarbamic acid and ferrous salt **9002-98-6DP**, carboxylated, ferrous salt  
 RL: NUU (Other use, unclassified); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
 (treatment agent; waste treatment agent for detoxification of heavy metals and harmful elements)
- IT 7758-89-6D, Cuprous chloride, reaction with **coordination compds.** 7758-94-3D, Ferrous chloride, reaction with **coordination compds.**  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (waste treatment agent for detoxification of heavy metals and harmful elements)
- IT **7439-96-5**, Manganese, processes 7439-97-6, Mercury, processes 7439-98-7, Molybdenum, processes 7440-31-5, Tin, processes 7440-33-7, Tungsten, processes 7440-36-0, Antimony, processes 7440-38-2, Arsenic, processes 7440-42-8, Boron, processes **7440-47-3**, Chromium, processes **7440-62-2**, Vanadium, processes 7723-14-0, Phosphorus, processes 7782-49-2, Selenium, processes  
 RL: POL (Pollutant); REM (Removal or disposal); OCCU (Occurrence); PROC (Process)  
 (waste treatment agent for detoxification of heavy metals and harmful elements)

L95 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:866312 CAPLUS

DOCUMENT NUMBER: 142:272744

TITLE: **Coordination compounds of a potential polydentate ligand 4. New compounds with a  $\beta$ -aminoketone as ligand**  
 AUTHOR(S): Stanescu, Michaela Dina; Jitaru, Ioana; Jinga, Oana Adriana  
 CORPORATE SOURCE: "Aurel Vlaicu" Univ., Arad, 310130, Rom.  
 SOURCE: Revista de Chimie (Bucharest, Romania) (2004), 55(9), 697-700  
 CODEN: RCBUAU; ISSN: 0034-7752

PUBLISHER: SYSCOM 18 SRL

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Oct 2004

AB New complexes of Fe(III) and Mn(II) with 1-phenyl-2-(1'-piperidinyl)ethanone (4) were synthesized and characterized. Their probable structure is proposed based on physicochem. analyses (elemental anal., molar conductivity, IR, electronic and mass spectra). The thermal stability of the complexes was also determined. The interest for these compds. is connected with their potential activity as reversible inhibitors of the monoaminoxidase.

CC 78-7 (Inorganic Chemicals and Reactions)

IT 779-52-2DP, 1-Phenyl-2-(1'-piperidinyl)ethanone, iron dinuclear complex

7439-89-6DP, Iron, phenyl(piperidinyl)ethanone dinuclear complex  
846538-56-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and thermal decomposition of)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L95 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:320809 CAPLUS

DOCUMENT NUMBER: 141:130364

TITLE: Fabrication of oxide and composite films using polymer  
- metal ion complexes

AUTHOR(S): Zhitomirsky, I.

- CORPORATE SOURCE:- Department of Materials Science and Engineering,  
McMaster University, Hamilton, ON, L8S 4L7, Can.

SOURCE: Proceedings - Electrochemical Society (2004),  
2003-25(Surface Oxide Films), 251-258

CODEN: PESODO; ISSN: 0161-6374

PUBLISHER: Electrochemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Apr 2004

AB Composite films consisting of hydroxides of transition elements (M = Ni,  
Fe, Co, Mn) and polyethylenimine (PEI) were obtained via cathodic  
electrodeposition. The proposed method is based on electrophoretic  
deposition of polymer - metal ion complexes and electrochem. precipitation of  
metal hydroxides. Films up to several microns thick were obtained on Pt,  
Ni, graphite and carbon fiber substrates. Deposition yield was evaluated  
under various exptl. conditions. By varying both the concentration of PEI in  
solns. and deposition time, the amount of the deposited material and its  
composition can be varied. The deposits were studied by thermogravimetric  
anal., X-ray diffraction anal. and SEM. The mechanism of electrochem.  
intercalation of PEI into hydroxide deposits is discussed.

CC 72-8 (Electrochemistry)  
Section cross-reference(s): 38, 56

IT **Coordination compounds**

RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PNU (Preparation, unclassified); PREP (Preparation); PROC  
(Process)

(with polymer; fabrication of oxide and composite films using polymer -  
metal ion complexes)

IT **26913-06-4, Polyethylenimine**

RL: CPS (Chemical process); NUU (Other use, unclassified); PEP (Physical,  
engineering or chemical process); PROC (Process); USES (Uses)

(electrodeposition of composite films consisting of hydroxides of  
transition elements (M = Ni, Fe, Co, Mn) and polyethylenimine)

IT **7440-02-0, Nickel, uses 7440-06-4, Platinum, uses 7782-42-5,  
Graphite, uses**

RL: DEV (Device component use); USES (Uses)

(fabrication of oxide and composite films using polymer - metal ion  
complexes on)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L95 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:972387 CAPLUS

DOCUMENT NUMBER: 140:34687

TITLE: Fabrication of layered materials for electronic  
applications with minimized diffusion of conductive or

INVENTOR(S): performance-degrading species  
 Iwamoto, Nancy; Thomas, Michael  
 PATENT ASSIGNEE(S): Honeywell International Inc., USA  
 SOURCE: PCT Int. Appl., 71 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003103020	A2	20031211	WO 2003-US17656	20030603
WO 2003103020	A3	20040603		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-385482P P 20020603

ED Entered STN: 14 Dec 2003

AB The invention relates to the fabrication of layered materials for electronic applications with minimized diffusion of conductive or performance-degrading species, where diffusion is prevented by a diffusion blocking layer, diffusion blocking particles in a porous film, or a diffusion blocking reactive solution. The layered material includes (i) a substrate; (ii) a dielec. material having a plurality of pores, where the material is coupled to the substrate; and (iii) a diffusion blocking material coupled to the low-k dielec. material, where the diffusion blocking material is attracted to the low-k dielec. material. The layered material also encompasses (i) a dielec. material having a plurality of pores, where each pore has a pore diameter; and (ii) a layer comprising a plurality of diffusion blocking particles, where the particles have a particle size that is larger than the pore diameter. Diffusion is also prevented by (i) providing a precursor material that comprises mols. having a mol. size that is larger than a pore diameter of any of the plurality of pores; (ii) providing a solvent carrier solution; (iii) combining the precursor material and the solvent carrier solution to form a diffusion blocking reactive solution; and (iv) applying the diffusion blocking reactive solution to a layer of porous material.

IC ICM H01L

CC 76-14 (Electric Phenomena)

Section cross-reference(s): 24, 38, 57, 75

IT **Coordination compounds**

RL: RCT (Reactant); RACT (Reactant or reagent)

(CVD or ALD precursor; fabrication of layered materials for electronic applications with minimized diffusion of conductive or performance-degrading species)

IT 7429-90-5D, Aluminum, **coordination compds.**

7439-89-6D, Iron, **coordination compds.**

7439-95-4D, Magnesium, **coordination compds.**

7440-22-4D, Silver, **coordination compds.**

7440-25-7D, Tantalum, **coordination compds.**

7440-32-6D, Titanium, **coordination compds.**

7440-33-7D, Tungsten, **coordination compds.**

7440-47-3D, Chromium, coordination compds.

7440-48-4D, Cobalt, coordination compds.

7440-50-8D, Copper, coordination compds.

7440-57-5D, Gold, coordination compds.

7440-66-6D, Zinc, coordination compds.

RL: RCT (Reactant); RACT (Reactant or reagent)

(CVD or ALD precursor; fabrication of layered materials for electronic applications with minimized diffusion of conductive or performance-degrading species)

IT 107-13-1D, 2-Propenenitrile, hydrogenated, Michael-addition dendrimers

RL: TEM (Technical or engineered material use); USES (Uses)

(Polypropylenimine, dielec. material; fabrication of layered materials for electronic applications with minimized diffusion of conductive or performance-degrading species)

IT 102-54-5D, Ferrocene, derivs. 281-23-2D, Adamantane, derivs.

498-66-8D, Norbornene, derivs. 9002-98-6, Polyethylenimine

26658-46-8 28182-47-0, Poly(triallylamine) 31974-35-3 31974-36-4

99685-96-8D, [5,6]Fullerene-C60-Ih, derivs. 227454-98-0 632358-59-9

632358-60-2 632358-62-4

RL: TEM (Technical or engineered material use); USES (Uses)

(dielec. material; fabrication of layered materials for electronic applications with minimized diffusion of conductive or performance-degrading species)

L95 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:673963 CAPLUS

DOCUMENT NUMBER: 139:215955

TITLE: Colored microparticle-containing inks for ink-jet printing, ink sets containing them and method for their use

INVENTOR(S): Asatake, Atsushi; Nakamura, Masaki; Ninomiya, Hidetaka

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003238869	A2	20030827	JP 2002-46112	20020222
PRIORITY APPLN. INFO.:			JP 2002-46112	20020222

ED Entered STN: 28 Aug 2003

AB The inks with good storage stability and delivery and giving lightfast prints contain colored microparticles obtained from resins containing dyes which can coordinate with metal ions through  $\geq 2$  dentates, selective polydentate ligands and metal ions, where the microparticles can be covered with another resins.

IC ICM C09D011-00

ICS B41J002-01; B41M005-00

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 41, 78

ST color ink set plastic pigment dye polydentate coordination compd

IT Coordination compounds

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of colored microparticle-containing inks for ink-jet printing, ink sets containing them and method for their use)



IT 7440-02-0DP, Nickel, complexes with **polydentate** colorants  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (manufacture of colored microparticle-containing inks for ink-jet printing, ink sets containing them and method for their use)

L95 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:784165 CAPLUS

DOCUMENT NUMBER: 132:23518

TITLE: Radical polymerization-curable material compositions, method for reinforcing concrete structures and reinforced concrete structures therewith

INVENTOR(S): Tsuji; Hideoki; Shitaoka; Shizuo; Okamoto, Kazuo; Ikeda, Hajime

PATENT ASSIGNEE(S): Nippon NSC Ltd., Japan

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962977	A1	19991209	WO 1999-JP897	19990226
W: CA, CN, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: JP 1998-156425 A 19980604

ED Entered STN: 10 Dec 1999

AB Title compns., showing a long pot-life at room temperature and useful as primers

or putty or forming fiber composites as reinforcers, contain polymerizable unsatd. monomers (A), A-soluble or dispersible polymers, radical polymerization initiators, transition metal soaps, and compds. capable of forming complexes or a chelates with the transition metal in the soaps. These compns. are applicable from -20° to 70°, especially for road pavements in summer. A composition containing glycidyl

methacrylate-isophthalic

acid-maleic anhydride-1,2-propylene glycol copolymer (I), styrene (II), Co octanoate, V octanoate, Nyper BO and 3% (based on 100 parts I, II, octanoates, and Bu2NH) Bu2NH showed a 30° gel time 40 min, vs. 10 min without the Bu2NH.

IC ICM C08F291-00

ICS C08F290-00; C08L101-00; E04G023-02

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 42, 58

IT Chelates

**Coordination compounds**

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(radical-curable resin compns. containing transition metal soaps and their complex- or chelate-forming compds. for long potlife)

IT 7439-89-6, Iron, uses 7439-92-1, Lead, uses 7440-02-0,

Nickel, uses 7440-32-6, Titanium, uses 7440-47-3,

Chromium, uses 7440-48-4, Cobalt, uses 7440-50-8, Copper, uses

7440-62-2, Vanadium, uses 7440-66-6, Zinc, uses

7440-67-7, Zirconium, uses 7440-70-2, Calcium, uses

RL: CAT (Catalyst use); USES (Uses)

(carboxylates; radical-curable resin compns. containing transition metal soaps and their complex- or chelate-forming compds. for long potlife)

IT 94-36-0, Nyper BO, uses 6700-85-2, Cobalt octanoate **7439-96-5**, Manganese, uses **7440-20-2**, Scandium, uses 22653-56-1, Vanadium octanoate

RL: CAT (Catalyst use); USES (Uses)

(radical-curable resin compns. containing transition metal soaps and their complex- or chelate-forming compds. for long potlife)

IT 93-46-9, N,N'-Di-2-naphthyl-p-phenylenediamine 96-29-7, Methyl ethyl ketoxime 102-06-7, 1,3-Diphenylguanidine 103-83-3, Dimethylbenzylamine 109-83-1, N-Methylethanolamine 110-89-4, Piperidine, uses 110-91-8, Morpholine, uses 111-92-2, Dibutylamine 623-76-7, N,N'-Diethylurea 931-36-2, 2-Ethyl-4-methylimidazole 3088-27-5, Methanolamine **9002-98-6**, Lupasol-FG 164325-40-0, Adeka-EPU 16A 224174-19-0, BYK 410 251930-43-5, Takenate L 1028

RL: MOA (Modifier or additive use); USES (Uses)

(radical-curable resin compns. containing transition metal soaps and their complex- or chelate-forming compds. for long potlife)

L95 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:219865 CAPLUS

DOCUMENT NUMBER: 128:230888

TITLE: Graft copolymers from acylated polystyrenes and polyethylenimine and their metal complexes

INVENTOR(S): Bayer, Ernst; Liu, Xiaoning

PATENT ASSIGNEE(S): Bayer, Ernst, Germany

SOURCE: Ger. Offen., 4 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19640154	A1	19980402	DE 1996-19640154	19960928
PRIORITY APPLN. INFO.:			DE 1996-19640154	19960928

ED Entered STN: 18 Apr 1998

AB The polymers (PSt)COCH(R)CH<sub>2</sub>Z(PEI) (PSt = divinylbenzene-crosslinked polystyrene residue, PEI = polyethylenimine residue, R = alkyl, Z = secondary or tertiary amino group) and their metal complexes are prepared AlCl<sub>3</sub>-catalyzed acetylation of 1.04 g crosslinked (1-2% divinylbenzene) polystyrene beads by 1 g AcCl in CH<sub>2</sub>Cl<sub>2</sub> at room temperature gave 1.4 g acetylated polymer which was refluxed (10 mmol) with 100 mmol paraformaldehyde and 0.8 mmol polyethyleneimine (mol. weight 30,000) in EtOH for 1 h to give 2.9 g polymer containing 13.9% N (degree of substitution of styrene rings 0.5). Preparation of Pt and Pd complexes is described.

IC ICM C08F008-32

ICS C08F008-10; C08F008-44; C08G081-00

CC 35-8 (Chemistry of Synthetic High Polymers)

ST **polyethyleneimine** graft polymer polystyrene; palladium complex graft polymer; platinum complex graft polymer; acetylated polystyrene grafting polyethylenimine; paraformaldehyde reaction acetylpolystyrene polyamine

IT **Coordination compounds**

RL: IMF (Industrial manufacture); PREP (Preparation)

(graft copolymers from acylated polystyrenes and polyethylenimine and their metal complexes)

IT 50-00-ODP, Formaldehyde, reaction products with acetylated polystyrene and

polyethylenimine, preparation **7439-89-6DP**, Iron, complexes with polyethylenimine-grafted polystyrene, preparation **7440-02-0DP**, Nickel, complexes with polyethylenimine-grafted polystyrene, preparation **7440-05-3DP**, Palladium, complexes with polyethylenimine-grafted polystyrene, preparation **7440-06-4DP**, Platinum, complexes with polyethylenimine-grafted polystyrene, preparation **7440-43-9DP**, Cadmium, complexes with polyethylenimine-grafted polystyrene, preparation **7440-48-4DP**, Cobalt, complexes with polyethylenimine-grafted polystyrene, preparation **7440-50-8DP**, Copper, complexes with polyethylenimine-grafted polystyrene, preparation **7440-66-6DP**, Zinc, complexes with polyethylenimine-grafted polystyrene, preparation **9002-98-6DP**, Polyethylenimine, reaction products with acetylated polystyrene **9003-70-7DP**, Divinylbenzene-styrene copolymer, acetyl derivs., reaction products with polyethylenimine, metal complexes  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (graft copolymers from acylated polystyrenes and polyethylenimine and their metal complexes)

L95 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:453974 CAPLUS  
 DOCUMENT NUMBER: 127:86150  
 TITLE: Use of metallo fluoro complexes for dental compositions  
 INVENTOR(S): Mitra, Sumita B.; Wang, Bing  
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, USA  
 SOURCE: PCT Int. Appl., 49 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9718791	A1	19970529	WO 1996-US15942	19961004
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6391286	B1	20020521	US 1995-560331	19951117
CA 2235522	AA	19970529	CA 1996-2235522	19961004
CA 2235522	C	20040127		
AU 9672562	A1	19970611	AU 1996-72562	19961004
EP 873106	A1	19981028	EP 1996-934047	19961004
EP 873106	B1	20030502		
R: DE, FR, GB, IT				
JP 2000500484	T2	20000118	JP 1997-519700	19961004
PRIORITY APPLN. INFO.:			US 1995-560331	A 19951117
			WO 1996-US15942	W 19961004

ED Entered STN: 21 Jul 1997

AB Dental compns. are provided with a F--releasing metal complex  $M(G)g(F)n$  or  $M(G)g(ZFm)n$  ( $M$  = cation-forming element with valency  $\geq 2$ ;  $G$  = organic chelating moiety;  $Z = H, B, N, P, S, Sb, As$ ;  $g, m, n \geq 1$ ). The fluoro complex may be incorporated into a Zn phosphate cement, polycarboxylate cement, glass ionomer cement, dental amalgam, or curable polymer. Preferred compns. addnl. contain a F--releasing

fluoroaluminosilicate glass; with the use of both F--releasing materials, excellent F- release is provided both in the initial period and over the long-term use of the composition Thus, 20 g ZnF<sub>2</sub> was slurried with a solution

of

20 g tartaric acid in 20 g water and dried to provide a Zn fluoro complex (component A). A polymerizable component (component B) was prepared by reaction of citric acid 400 with 2-isocyanatoethyl methacrylate 161.5 g in THF in the presence of BHT 0.52, Ph<sub>3</sub>Sb 0.5, and dibutyltin dilaurate 0.98 g. A powdered silanized fluoroaluminosilicate glass (component C) by preparing a melt of SiO<sub>2</sub> 37, AlF<sub>3</sub> 23, SrCO<sub>3</sub> 20, Al<sub>2</sub>O<sub>3</sub> 10, Na<sub>3</sub>AlF<sub>6</sub> 6, and P<sub>2</sub>O<sub>5</sub> 4 parts at 1350-1450°, quenching, ball-milling, treating with γ-methacryloxypropyltrimethoxysilane (A-174) solution, drying, and mixing with 2% A-174-treated colloidal silica. A paste of component A 4, component B 7.0, component C 74.0, glycerol dimethacrylate 13.9, and PVP 1.1 g was mixed with camphorquinone 0.095 and Et 4-dimethylaminobenzoate 0.37 and photopolymd. A 1 + 20 mm disk of this material immersed in water released 43.38 µg F-/cm<sup>2</sup> in 3 days.

IC ICM A61K006-083

ICS A61K006-02; A61K006-04

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 35, 78

IT **Coordination compounds**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(use of metallo fluoro complexes for dental compns.)

IT 59-52-9D, chelates 60-00-4D, EDTA, chelates 60-10-6D, Dithizone, chelates 62-56-6D, Thiourea, chelates, biological studies 66-71-7D, o-Phenanthroline, chelates 68-11-1D, Thioglycolic acid, chelates 69-72-7D, Salicylic acid, chelates 77-92-9D, chelates 78-90-0D, 1,2-Propylenediamine, chelates 87-69-4D, Tartaric acid, chelates, biological studies 90-02-8D, Salicylaldehyde, chelates 94-67-7D, Salicylaldoxime, chelates 95-45-4D, Dimethylglyoxime, chelates 97-05-2D, 5-Sulfosalicylic acid, chelates 97-65-4D, complexes 102-71-6D, chelates 111-41-1D, chelates 112-24-3D, Triethylenetetramine, chelates 123-54-6D, Acetylacetone, chelates 139-13-9D, Nitrilotriacetic acid, chelates 140-89-6D, Potassium ethylxanthate, chelates 148-18-5D, Sodium diethyldithiocarbamate, chelates 148-24-3D, Oxine, chelates 148-25-4D, Chromotropic acid, chelates 150-25-4D, N,N-Bis(hydroxyethyl)glycine, chelates 150-39-0D, Hydroxyethylethylenediaminetriacetic acid, chelates 252-72-2D, Disalicylaldehyde, chelates 298-06-6D, chelates 326-91-0D, Thenoyltrifluoroacetone, chelates 367-57-7D, Trifluoroacetylacetone, chelates 496-74-2D, Dithiol, chelates 517-60-2D, Mellitic acid, chelates 526-95-4D, Gluconic acid, chelates 574-93-6D, Phthalocyanine, chelates 917-23-7D, chelates 1429-50-1D, Ethylenediaminetetra(methylenephosphonic acid), chelates 2809-21-4D, chelates 4097-89-6D, chelates 6419-19-8D, Nitrilotrimethylenephosphonic acid, chelates 6915-15-7D, Malic acid, chelates 7429-90-5D, Aluminum, chelates, biological studies 7439-95-4D, Magnesium, chelates, biological studies 7440-24-6D, Strontium, chelates, biological studies 7440-31-5D, Tin, chelates, biological studies 7440-64-4D, Ytterbium, chelates, biological studies 7440-65-5D, Yttrium, chelates, biological studies 7440-66-6D, Zinc, chelates, biological studies 7440-67-7D, Zirconium, chelates, biological studies 7440-70-2D, Calcium, chelates, biological studies 7704-34-9D, Sulfur, compds., complexes, biological studies 7758-29-4D, Sodium tripolyphosphate, chelates 9002-98-6D, chelates 13598-36-2D, Phosphonic acid, compds., complexes 14187-32-7D, Dibenzo[18]crown-6, chelates 18694-07-0D, Hexametaphosphoric acid, chelates 21282-97-3D, complexes 23978-09-8D, complexes 25120-51-8D, Polymethacryloylacetone, chelates 26426-05-1, Bis-GMA/TEGDMA copolymer 29656-58-4D, Hydroxybenzoic acid, derivs., chelates 30395-28-9D,

chelates 37275-48-2D, Dipyridyl, chelates 51854-94-5D, chelates  
 52642-08-7D, chelates 191537-66-3D, complexes 191537-67-4D, complexes  
 191537-68-5D, complexes 191537-69-6D, complexes 191537-70-9D,  
 complexes 191683-30-4D, complexes 191750-84-2D, complexes  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (use of metallo fluoro complexes for dental compns.)

L95 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:609436 CAPLUS

DOCUMENT NUMBER: 125:229737

TITLE: Metal fixing method for solid waste treatment for  
 environmental pollution prevention

INVENTOR(S): Moriya, Masafumi; Hosoda, Kazuo

PATENT ASSIGNEE(S): Myoshi Yushi KK, Japan; Miyoshi Oil and Fat Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho; 9 pp:

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08173936	A2	19960709	JP 1994-337106	19941226
JP 3516278	B2	20040405		

PRIORITY APPLN. INFO.: JP 1994-337106 19941226

ED Entered STN: 12 Oct 1996

AB A compound, optionally a hydrophilic compound, having a function to form a  
 complex with metals is added to and kneaded with a solid waste in the  
 presence of water and an additive to fix metals in the solid waste.  
 Attributed to the additive, heavy metals contained in solid wastes and  
 harmful for human bodies are effectively fixed and prevented from flowing  
 out by the method with a small amount of water and post-treatment can be  
 carried out easily. The complex formable compound is a compound containing a  
 coordinating atom, e.g. O, N, P, S, etc.

IC ICM B09B003-00

ICS B09C001-02; B09C001-08; C02F011-00

CC 60-4 (Waste Treatment and Disposal)

Section cross-reference(s): 29, 54

IT **Coordination compounds**

RL: IMF (Industrial manufacture); PREP (Preparation)

(metal fixing method by complex formation with chelating agents in  
 solid waste treatment)

IT 110-70-3, N, N'-Dimethylethylenediamine 148-18-5, Sodium  
 diethyldithiocarbamate 4067-16-7D, Pentaethylenhexamine, reaction  
 product with compound with C12-14 epoxyalkane and ammonium dithionate  
 4384-81-0, Sodium dithiocarbamate 7446-81-3D, reaction product with  
 polyvinylamine 7631-94-9D, Sodium dithionate, reaction product with  
 amine-containing polymers **9002-98-6D**, polymer with polyethylene  
 glycol diepoxide, reaction products with potassium dithionate and oxime  
 13455-20-4D, reaction product with **polyethyleneimine**  
 -polyethyleneglycol diepoxide copolymer 22438-73-9D, Potassium  
 dithiocarbamate, reaction product with **polyethyleneimine**  
 25322-68-3D, Polyethylene glycol, diepoxide, polymer with  
**polyethyleneimine**, reaction products with potassium dithionate and  
 oxime 26336-38-9D, Polyvinylamine, reaction product with sodium  
 dithionate and sodium ethylenecarboxylate 60816-52-6D, Ammonium  
 dithionate, reaction product with pentaethylenhexamine and epoxyalkane  
 137737-43-0D, hetero atom-containing group-introduced  
 RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or

reagent); USES (Uses)

(metal fixing method by complex formation with chelating agents in solid waste treatment)

IT 7439-92-1, Lead, processes 7439-97-6, Mercury, processes  
7440-02-0, Nickel, processes 7440-43-9, Cadmium, processes  
7440-47-3, Chromium, processes 7440-50-8, Copper, processes  
7440-66-6, Zinc, processes

RL: REM (Removal or disposal); PROC (Process)

(solid waste containing; metal fixing method by complex formation with chelating agents in solid waste treatment)

L95 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:406570 CAPLUS

DOCUMENT NUMBER: 107:6570

TITLE: Study of catalytic properties of coordination

compounds of nickel, cobalt, rhodium, ruthenium, and palladium with polyamines

AUTHOR(S): Perchenko, V. N.; Omaraliev, T. O.; Abubakirov, R. Sh.; Sytov, G. A.

CORPORATE SOURCE: Kaz. Khim.-Tekhnol. Inst., Chimkent, USSR

SOURCE: Izvestiya Akademii Nauk Kazakhskoi SSR, Seriya

Khimicheskaya (1986), (3), 20-4

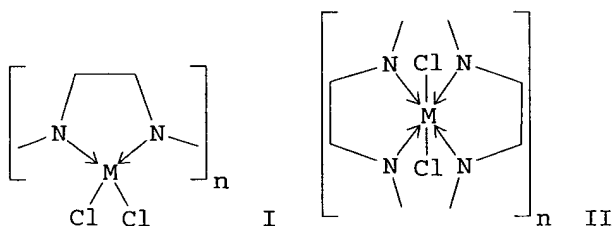
CODEN: IKAKAK; ISSN: 0002-3205

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 11 Jul 1987

GI



AB Chelates of  $\text{PdCl}_2$ ,  $\text{RhCl}_2$ ,  $\text{RuCl}_2$ ,  $\text{CoCl}_2$ , or  $\text{NiCl}_2$  with polyethyleneimine or polytriethyleneimine, after reduction with  $\text{NaBH}_4$ , maintain their structures of I or II type. These chelates catalyze the hydrogenation of 1,3-pentadiene to pentane, 1-pentene, cis-2-pentene, and trans-2-pentene. The I type chelates (mol. t. 2000-10000) are more active than the II type chelates. The chelate activity decreases in the order  $\text{Ph} > \text{Rh} > \text{Ru} > \text{Co} > \text{Ni}$ . The reduction of these chelates with  $\text{H}$  (0.5 MPa, 358 K) also gives I or II type compds. with Cl replaced by H, but they are less catalytically active than the chelates reduced with  $\text{NaBH}_4$ . The hydrogenation of cis-1,3-pentadiene and trans-1,3-pentadiene isomers over Ru (I type) chelates shows that there is no isomerization. The reaction is 0 order in respect to the dienes, 1st order in respect to H, and its activation energy is 29.3 kJ/mol. The mechanistic implications of these reactions are discussed.

CC 22-4 (Physical Organic Chemistry)

Section cross-reference(s): 67

IT 7440-02-0D, polyethylenimine complexes, reduced 7440-05-3D, polyethylenimine complexes, reduced 7440-16-6D, polyethylenimine complexes, reduced 7440-18-8D, polyethylenimine complexes, reduced 7440-48-4D, polyethylenimine complexes, reduced 9002-98-6D, Group VIII metal complexes, reduced 53860-05-2D, Group VIII metal

complexes, reduced  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for hydrogenation of dienes)

L95 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1980:550853 CAPLUS

DOCUMENT NUMBER: 93:150853

TITLE: Study of the catalytic properties of polyethylenimine  
**coordination compounds**

AUTHOR(S): Perchenko, V. N.; Mirskova, I. S.; Nametkin, N. S.

CORPORATE SOURCE: Inst. Neftekhim. Sint. im. Topchieva, Moscow, USSR

SOURCE: Doklady Akademii Nauk SSSR (1980), 251(6), 1437-40  
 [Phys. Chem.]

CODEN: DANKAS; ISSN: 0002-3264

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 12 May 1984

AB The title compds., obtained either by thermal polymerization of complexes of ethylenimine with NiCl<sub>2</sub>, CoCl<sub>2</sub>, RhCl<sub>3</sub>, and PdCl<sub>2</sub>, or by direct reaction of the latter with poly(ethylenimine), catalyzed hydrogenation, isomerization, and intermol. H distribution of 1,3-cyclohexadiene [592-57-4], 1,3-cyclooctadiene [1700-10-3], and 1,5-cyclooctadiene [111-78-4]. The activity and selectivity of the catalysts depended on the nature of the metals and macroligands; most active in hydrogenation were complexes of Pd and Rh.

CC 35-6 (Synthetic High Polymers)

Section cross-reference(s): 22, 24, 67

IT 151-56-4D, transition metal complexes **7440-02-0D**, aziridine complexes **7440-05-3D**, aziridine complexes **7440-16-6D**, aziridine complexes **7440-48-4D**, aziridine complexes **7646-79-9D**, poly(ethylenimine) complex **7647-10-1D**, poly(ethylenimine) complex **7718-54-9D**, poly(ethylenimine) complex **9002-98-6D**, metal chloride complexes **10049-07-7D**, poly(ethylenimine) complex

RL: USES (Uses)

(hydrogenation and isomerization catalysts, for cyclohexadiene and cyclooctadienes)

L95 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1977:610407 CAPLUS

DOCUMENT NUMBER: 87:210407

TITLE: The effect of stereochemical constraints in  
**polydentate** ligands on the coordination geometries of their five- and six-coordinate complexes

AUTHOR(S): Abdel-Meguid, Sherin Salaheldin

CORPORATE SOURCE: Univ. Nebraska, Lincoln, NE, USA

SOURCE: (1977) 260 pp. Avail.: Univ. Microfilms Int., Order No. 77-18,717

From: Diss. Abstr. Int. B 1977, 38(3), 1198

DOCUMENT TYPE: Dissertation

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Unavailable

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

ST coordination geometry metal **polydentate** ligand; stereochem constraint **polydentate** ligand; structure metal **polydentate** ligand complex

IT **Transition metals**, compounds

RL: RCT (Reactant); RACT (Reactant or reagent)

(complexes, with **polydentate** ligands, coordination geometries)

of 5- and 6-coordinates, stereochem. constraints in relation to)

IT **Coordination compounds**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (geometries of 5- and 6-coordinate, stereochem. constraints in  
**polydentate** ligands in relation to)

IT Crystal structure  
 (of transition metal complexes with stereochem. constrained  
**polydentate** ligand)

IT Stereochemistry  
 (**polydentate** ligand constrained, coordination geometries of  
 5- and 6-coordinate complexes in relation to)

IT Ligands  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (**polydentate**, stereochem. constraints in, coordinate  
 geometries of 5- and 6-coordinate complexes in relation to)

L95 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1974:497475 CAPLUS

DOCUMENT NUMBER: 81:97475

TITLE: Applications of x-ray photoelectron spectroscopy to  
 the study of inorganic and organometallic complexes of  
 nickel, palladium, platinum, and molybdenum.  
 Synthesis and characterization of some novel  
**polydentate** phosphorus-nitrogen ligands

AUTHOR(S): Matienzo, Luis J.

CORPORATE SOURCE: Univ. Maryland, College Park, MD, USA

SOURCE: (1973) 204 pp. Avail.: Univ. Microfilms, Ann Arbor,  
 Mich., Order No. 74-12,824  
 From: Diss. Abstr. Int. B 1974, 34(12), 5890

DOCUMENT TYPE: Dissertation

LANGUAGE: English

ED Entered STN: 12 May 1984

AB Unavailable

CC 73-5 (Spectra by Absorption, Emission, Reflection, or Magnetic Resonance,  
 and Other Optical Properties)  
 Section cross-reference(s): 29

IT Ligands  
 RL: PRP (Properties)  
 (nitrogen-phosphorus **polydentate**)

IT **Coordination compounds**  
 Organometallic compounds  
 RL: PRP (Properties)

(x-ray photoelectron spectra of)

IT 7723-14-0D, Phosphorus, phosphorus-containing compds. 7727-37-9D, Nitrogen,  
 phosphorus-containing compds.  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (synthesis of, for **polydentate** ligands)

IT 7439-98-7D, Molybdenum, organometallic complexes **7440-02-0D**,  
 Nickel, organometallic complexes **7440-05-3D**, Palladium, organometallic  
 complexes **7440-06-4D**, Platinum, organometallic complexes  
 RL: PRP (Properties)  
 (x-ray photoelectron spectra of)

L95 ANSWER 17 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN DUPLICATE 2

AN 2002-416818 [44] WPIDS

DNN N2002-328010 DNC C2002-117593

TI New agent useful as antibacterial agent comprises silver complex in which  
 lone pair of electrons of nitrogen atom of amine compound or water-soluble



polymer having basic nitrogen in backbone are **coordinated** with silver ion.

DC A97 B04 C01 C03 D22 E12 E32 P34  
IN KIM, S S; LEE, S H; PARK, I H; SHIN, B C; PARK, I  
PA (KORE-N) KOREA RES INST CHEM TECHNOLOGY; (KIMS-I) KIM S S; (LEES-I) LEE S  
H; (PARK-I) PARK I; (SHIN-I) SHIN B C

CYC 23

PI WO 2002030204 A1 20020418 (200244)\* EN 24  
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
W: JP US

KR 2002028390 A 20020417 (200268)  
EP 1330164 A1 20030730 (200350) EN  
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR  
US 2003190370 A1 20031009 (200367)  
JP 2004510794 W 20040408 (200425) 36  
KR 411178 B 20031218 (200425)  
EP 1330164 B1 20051207 (200582) EN  
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

ADT WO 2002030204 A1 WO 2001-KR766 20010511; KR 2002028390 A KR 2000-59345  
20001009; EP 1330164 A1 EP 2001-930295 20010511, WO 2001-KR766 20010511;  
US 2003190370 A1 WO 2001-KR766 20010511, US 2003-398857 20030409; JP  
2004510794 W WO 2001-KR766 20010511, JP 2002-533657 20010511; KR 411178 B  
KR 2000-59345 20001009; EP 1330164 B1 EP 2001-930295 20010511, WO  
2001-KR766 20010511

FDT EP 1330164 A1 Based on WO 2002030204; JP 2004510794 W Based on WO  
2002030204; KR 411178 B Previous Publ. KR 2002028390; EP 1330164 B1 Based  
on WO 2002030204

PRAI KR 2000-59345 20001009

AB WO 200230204 A UPAB: 20020711

NOVELTY - An antibacterial agent comprises a silver complex in which lone pair of electrons of nitrogen atom of amine compound with high boiling point or a water-soluble polymer having basic nitrogen atom in the backbone or side chain are **coordinated** with silver ion.

ACTIVITY - Vulnerary; Dermatological; Antibacterial; Fungicide; Insecticide; Antiinflammatory.

MECHANISM OF ACTION - Microbial growth inhibitor.

After adding polyhexamethylenebiguanidine (1 g) in water (1 l), silver benzoate (2 g), sodium benzoate (10 g) and sodium salicylate (1 g) were added slowly while stirring. After stirring for 24 hours, a polyhexamethylenebiguanidine complex containing silver salt was obtained. The minimum inhibitory concentration (MIC) was measured using test-tube dilution method in order to evaluate the antibacterial activity of the polyhexamethylenebiguanidine silver complex. The complex had an MIC (parts per million) of greater than 1 (against Escherichia coli (ATCC 25922)); 1 (against Escherichia coli O-157 (ATCC 43895)); 3 (against Staphylococcus aureus (ATCC 25923)); 3 (against Staphylococcus aureus (ATCC 6538P)); 2 (against Trichophyton rubrum (ATCC 28188)); 1 (against Candida albicans (algae) (ATCC 11651)); and greater than 1 (against Trentopholia **odorata** (yeast)). The results showed that the test silver complex showed superior antibacterial effect.

USE - In antibacterial and **deodorizing** solutions (claimed) useful for treating burns, prevention and treatment of bed sore and dermatitis. Also useful as a fungicide of vegetables and crops or green algae inhibitor of aquarium and for the extermination of insects like cockroaches.

ADVANTAGE - The complex has superior antibacterial effect, low toxicity, good solubility to water and stable silver ion, and hardly discolor by light. The complex provides silver ion stabilization effect as in the addition of ammonia and does not emit the offensive **odor** and therefore is useful for spray-type antibacterial and

**deodorizing** agent. The agents help to prevent the environmental pollution as they prevent the vaporization of offensive-smelling compounds and environmental pollutants by forming the complex. The antibacterial agent has superior exterminating effects of molds and algae. The agent extends the life of flowers by preventing the bacterial infection and hence prevents flower wilting.

Dwg.0/2

TECH

UPTX: 20020711

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: The polymer is polvinylamine, polyarylamine, **polyethyleneimine**, polyhexamethylenebiguanidine or polyvinylpyridine.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - The silver complex is dissolved in water solvent or mixture solvent of water and alcohol.

L95 ANSWER 18 OF 27 WPIDS COPYRIGHT-2006 THE THOMSON CORP on STN DUPLICATE-3-

AN 1990-339151 [45] WPIDS

DNN N1990-259126 DNC C1990-147292

TI **Deodorising** regenerated cellulose compsn. with wash-out resistance - regenerated by addition of macromolecular substance containing basic nitrogen.

DC A11 A18 D22 E12 F01 P34

PA (KOJK) KOHJIN CO LTD

CYC 1

PI JP 02245039 A 19900928 (199045)\*

JP 06081795 B2 19941019 (199440) 7

ADT JP 02245039 A JP 1989-63483 19890317; JP 06081795 B2 JP 1989-63483 19890317

FDT JP 06081795 B2 Based on JP 02245039

PRAI JP 1989-63483 19890317

AB JP 02245039 A UPAB: 19930928

Compsn. has a regenerated cellulose regenerated by the addition of a macromolecular substance having functional gps. containing basic nitrogen to viscose, is **coordinated** with a metal phthalocyanine derivative of formula (I) after processing, is new.

The metal phthalocyanine is pref. iron phthalocyanine octacarboxylic acid of formula (II). The macromolecular substance is **polyethyleneimine**, polyvinylpyridine, polyvinylimidazole, polyvinylamine, polyallylamine, polyaminostyrene or their derivative or copolymer.

USE/ADVANTAGE - It is used as **deodorising** fibre or film. It has a high **deodorising** property which remains after washings.

0/6

L95 ANSWER 19 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

AN 2004-814828 [81] WPIDS

DNC C2004-283834

TI Delignifying fibrous material, e.g. wood pulp, comprises contacting material with an active oxygen source and catalyst with iminium, oxaziridinium or sulfonylimine structure.

DC E11 E12 F09

IN JAKOB, H; KUNZ, U; SUESS, H U

PA (DEGS) DEGUSSA AG

CYC 1

PI DE 10317526 A1 20041104 (200481)\* 18

ADT DE 10317526 A1 DE 2003-10317526 20030416

PRAI DE 2003-10317526 20030416

AB DE 10317526 A UPAB: 20041216

NOVELTY - Delignifying fibrous material with a kappa number of at least 5 comprises contacting the material with an aqueous medium containing an

active oxygen source and a catalyst with an iminium, oxaziridinium or sulfonylimine structure.

DETAILED DESCRIPTION - Delignifying fibrous material with a kappa number of at least 5 comprises contacting the material with an aqueous medium containing an active oxygen source in an amount of at least 0.5% by weight of dry **fiber** and a catalyst with an iminium, oxaziridinium or sulfonylimine structure of formula (I)-(IV) in an amount of at least 500 ppm by weight of dry **fiber**, whereby the kappa number is reduced by at least 2 units.

R1, R4 = H or optionally substituted 1-30C aryl, heterocyclyl, alkyl, alkenyl, aralkyl, alkaryl or cycloalkyl;

R2 = H, optionally substituted 1-30C aryl, heterocyclyl, acyl, alkyl, alkenyl, aralkyl, alkaryl or cycloalkyl, CN, NO2, F, Cl, Br, 1-20C alkoxy, COOH or 1-20C alkoxycarbonyl, or also C(R1)=NR3R4 in (I) or (II), C(R1)=NSO2R3 in (III) or C(R1)=NSO2QR3 in (IV);

R3 = optionally substituted 1-30C aryl, heterocyclyl, aralkyl or alkaryl, or halo, CN or NO2;

Q = O or NR1;

X = anion or an anionic group bonded to R3;

alternatively, R1+R2 and R2+R3 can form a mono- or polycyclic alicyclic, aromatic or heterocyclic ring system.

USE - Delignifying fibrous material, especially wood pulp.

ADVANTAGE - The catalyst increases the reduction in kappa number.

Dwg.0/0

TECH

UPTX: 20041216

TECHNOLOGY FOCUS - **TEXTILES** AND PAPER - Preferred Process:

Delignification is effected in the presence of a peroxide-activating **transition metal** complex.

The catalyst is most preferably an iminium salt of formula (V) or (VII).

n = 0-2;

R9 = Cl, methyl, methoxy or -SO3H;

m = 1 or 2;

G = O, N(R10), C(R11)(R12);

R10, R11, R12 = no translated definition given;

when m is 1, R3 = H, methyl, ethyl, n-propyl, n-butyl, -COOCH3,

-CH2COO-, -(CH2)3COO-, or (CH2)3SO3-;

when m is 2, R3 = 2-10C alkylene;

R2, R5-R8 = H or Me;

X- = Cl-, SO42-, NO3-, BF4-, mesylate, tosylate or an anionic group bonded to R3.

Preferred Process: Delignification is effected in the presence of a peroxide-activating **transition metal** complex, especially iron-, cobalt-, or manganese complex.

A metal complex of formula (LqMrXs)zYt (IX) is used a quantity of 10-10000 ppm, with respect to the quantity of absolutely dry lignin-containing synthetic material.

L = **polydentate** ligand of the general formulae (Xa), (Xb), (Xc) and (Xd);

R14, R16, R17 = hydrogen, linear or branched alkyl or alkenyl, (un)substituted aryl or arylalkyl;

R15 = N-(un)substituted linear, branched or cyclic aminoalkyl, (un)substituted heteroaryl, such as pyridyl, pyrazinyl, pyrazolyl, pyrrolyl, imidazolyl, pyrimidyl, triazolyl or quinolyl;

M = activating **transition metal**, particularly iron in the oxidation state (2) or (3), manganese in the oxidation state (2)-(7) and cobalt in the oxidation state (2)-(4), preferably Co2+ and Co3+;

X = **coordinated** neutral or anionic group, particularly selected from CH3CN, CH3COO-, Cl-, Br-, H2O, OH-, HOO-, OCN-, SCN-, PO43-, NH3, NO3-, NO2-, NO, O2- and O22-;

Y = counterion or countermolecule, particularly selected from ClO4-, Br-,

Cl<sup>-</sup>, PF<sub>6</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, B(C<sub>6</sub>H<sub>5</sub>)<sub>4</sub><sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, CH<sub>3</sub>COO<sup>-</sup> and their mixtures;

q = 1-4;

s = 0-4 for mononuclear complex and 0-12 for polynuclear complex;

z = complex charge;

t = z/(charge of Y).

A **transition metal** complex of formula (XI) is used.

M = **transition metal**, particularly Fe, Co or Mn;

Z = donor atom, particularly nitrogen;

Ch<sub>1</sub>, Ch<sub>2</sub>, Ch<sub>3</sub> = oxidation-stable chelate group, which can form a 5 or 6-membered ring with the metal atom;

Ch<sub>4</sub> = chelate group of formula (i);

R<sub>18</sub> and R<sub>19</sub> = preferably H, halogen, methyl, trifluoromethyl, and, if R<sub>18</sub> and R<sub>19</sub> are connected, cyclopentyl and cyclohexyl.

The treatment is additionally in the presence of 10-10000 ppm, with

respect to ~~absolutely-dry-lignin-containing-synthetic material, of a~~ manganese(IV) catalyst of formula (L'MnIV(OR<sub>20</sub>)<sub>3</sub>)Y (XII).

R<sub>20</sub> = 1-20C alkyl, cycloalkyl, aryl or benzyl, and two R<sub>20</sub>s can connect together directly or via O-bridge;

L' = ligand with 3-30 C atoms and at least three with MnIV

**coordination** to nitrogen atoms;

Y = oxidation-stable counterion.

The treatment is additionally in the presence of 5-5000 ppm, with respect to absolutely dry lignin-containing synthetic material, of a manganese complex of formula (L''uMnvXw)zYt (XIII).

Mn = 2-5 valent manganese;

u and v = 1-4;

w = 1-12;

z = complex charge

t = z/(charge of Y);

X = **coordination** ligand;

Y = counterion or neutral molecule;

L'' = macro-cyclic organic compound of formula (XIV);

R<sub>21</sub>-R<sub>25</sub> = H, alkyl or aryl;

D, D' = N, NR<sub>25</sub>, P(O)R, S;

f, f' = 2-4;

i = 1-20.

The treatment is additionally in the presence of 5-5000 ppm, with respect to absolutely dry lignin-containing synthetic material, of a cobalt complex of formula (Co(NH<sub>3</sub>)<sub>5</sub>M)Ty (XV).

M = carboxylate of formula R<sub>26</sub>CO<sub>2</sub><sup>-</sup>;

R<sub>26</sub> = H, (un)substituted 1-30C alkyl, (un)substituted aryl or heteroaryl, where the substituents are -NR'<sub>2</sub>, -NR'<sub>3</sub><sup>+</sup>, C(O)OR', OR', -C(O)NR'<sub>2</sub>;

R' = H or 1-6C alkyl;

T = counterion;

y = number to balance charge.

The active oxygen source is hydrogen peroxide and is used in an amount of 0.5-10%, optionally together with an activator forming a percarboxylic acid.

The catalyst is used in an amount of 0.2-5%.

The **fiber** content of the aqueous medium is 10-40 wt.%.

Delignification is effected at 40-100degreesC.

Delignification is effected in the presence of 10-10000 ppm of a phenathroline or polypyridyl activator, which is used in the form of the heterocycle, its' N-oxide and/or a **transition metal** complex.

L95 ANSWER 20 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
AN 2004-042601 [04] WPIDS  
CR 2002-547856 [58]  
DNC C2004-017522

TI Enzymatic detergent composition for **textile** washing comprises lipolytic enzyme obtainable from Humicola lanuginosa, Pseudomona pseudoalcaligenes, or Rhizomucor miehei.

DC D16 D25 E19

IN BAE-LEE, M; EHRNSPERGER, E C; HAGE, R; KLUGKIST, J; SWARTHOFF, T; WAAL, V D P; VAN DER WAAL, P

PA (UNIL) HINDUSTAN LEVER LTD; (UNIL) UNILEVER NV; (UNIL) UNILEVER PLC

CYC 103

PI WO 2003097780 A1 20031127 (200404)\* EN 65

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

AU 2003227725 A1 20031202 (200442)

EP 1506277 A1 20050216 (200513) EN

R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

ADT WO 2003097780 A1 WO 2003-EP4743 20030507; AU 2003227725 A1 AU 2003-227725 20030507; EP 1506277 A1 EP 2003-725158 20030507, WO 2003-EP4743 20030507

FDT AU 2003227725 A1 Based on WO 2003097780; EP 1506277 A1 Based on WO 2003097780

PRAI US 2002-151628 20020520

AB WO2003097780 A UPAB: 20050224

NOVELTY - An enzymatic detergent composition comprises surfactant; 10-20000 LU/g detergent composition of lipolytic enzyme obtainable from Humicola lanuginosa, Pseudomona pseudoalcaligenes, or Rhizomucor miehei; and a non-cross-bridged **polydentate** N-donor ligand capable of forming a complex with a **transition metal**. The complex is capable of catalyzing the bleaching of stains on **fabrics** by atmospheric oxygen.

USE - For use in combination with a tumble dryer for **textile** washing.

ADVANTAGE - The invented detergent composition exhibits superior cleaning activity on oily stains, and exhibits lipolytic activity when used to wash **fabrics** that have not been in contact with the detergent product.

Dwg.0/0

TECH UPTX: 20040115

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Component: The lipase can be lipolase, lipolase ultra, lipoprime, lipomax, liposam or lipex. The ligand is of formula (I) or its **transition metal** complex, preferably iron, manganese, copper or cobalt.

Z1 = coordinating group from optionally substituted heteroaromatic ring from pyridine, pyrimidine, pyrazine, pyrazole, imidazole, benzimidazole, quinoline, quinoxaline, triazole, isoquinoline, carbazole, indole, isoindole, oxazole or thiazole;

Q1 = (CR1R2)n;

R1, R2 = H, OH, halo, -R or -OR;

R = alkyl, alkenyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl or carbonyl derivative;

n = 1 or 2;

T = non-coordinated group from H, OH, halo, -R or -OR, preferably H, OH, methyl, ethyl, benzyl or methoxy;

R = alkyl, alkenyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, carbonyl derivative group or optionally substituted by functional group E;

U = coordinating group of formulae (II)-(IV);

Q2, Q4 = as for Q1;

Q = -N(T)- or optionally substituted heterocyclic ring or heteroaromatic ring from pyridine, pyrimidine, pyrazine, pyrazole, imidazole, benzimidazole, quinoline, quinoxaline, triazole, isoquinoline, carbazole, indole, isoindole, oxazole or thiazole;

Z3 = -N(T)-;

Z4 = coordinating or non-coordinating group from H, OH, halo, -NH-C(NH)NH<sub>2</sub>, -R, -OR or formula (IIa);

j = 1-4;

Q3 = covalent bond or 1-4C alkylene, preferably covalent bond.

The ligand can be 1,1-bis(pyridin-2-yl)-N-methyl-N-(pyridin-2-yl-methyl)methylamine, N,N-bis(pyridin-2-yl-methyl)-bis(pyridin-2-yl)methylamine, N,N-bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-1-aminoethane, N,N-bis(pyridin-2-yl-methyl)-1,1-bis(pyridin-2-yl)-2-phenyl-1-aminoethane, 1,1-bis(pyridin-2-yl)-N,N-bis(6-methyl-pyridin-2-yl-methyl)methylamine, 1,1-bis(pyridine-2-yl)-1-benzyl-N,N-bis(5-carboxymethyl-pyridin-2-yl-methyl)methylamine or 1,1-bis(pyridin-2-yl)-N,N-bis(benzimidazol-2-yl-methyl)methylamine, or formulae (V)-(VII).

Preferred Concentration: A unit dose provides an aqueous concentration of air bleaching catalyst of 0.1-10 KLU/l.

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Component: The lipase is a polypeptide having an amino acid sequence having at least 90% identity with the wide-type lipase derived from Humicola lanuginosa strain DSM 4108; compared to the wild-type lipase comprises a substitution of an electrically neutral or negatively charged amino acid at the surface of the three-dimensional structure at 15 A of E1 or Q249 with a positively charged amino acid; and meets the limitations comprises a negative amino acid in position E210 of the wild-type lipase, comprises negatively charged amino acid in the region corresponding to positions 9-101 of the lipase; and comprises a neutral or negative amino acid at a position corresponding to N94 or the wild type lipase and/or has a negative or neutral net electric charge in the region corresponding to positions 90-101 of the wild tupe lipase.

L95 ANSWER 21 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

AN 2002-034085 [04] WPIDS

DNC C2002-009452

TI Chromium, manganese, vanadium, titanium, zirconium, or hafnium complex of anion, for polymerization catalyst used for polymerization of olefins, e.g. ethylene, has three donor atoms.

DC A17 E11 E12 H07

IN ITTEL, S D; WANG, Y

PA (ITTE-I) ITTEL S D; (WANG-I) WANG Y; (DUPO) DU PONT DE NEMOURS & CO E I

CYC 95

PI WO 2001068724 A2 20010920 (200204)\* EN 43

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

US 2001044512 A1 20011122 (200204)

AU 2001045458 A 20010924 (200208)

EP 1263810 A2 20021211 (200301) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR

KR 2002091120 A 20021205 (200324)

US 6562751 B2 20030513 (200335)

BR 2001009032 A 20030603 (200343)

JP 2003527403 W 20030916 (200362) 52

US 2003191018 A1 20031009 (200367)

US 6747106 B2 20040608 (200437)  
 US 2004171481 A1 20040902 (200458)  
 US 6905999 B2 20050614 (200540)  
 ADT WO 2001068724 A2 WO 2001-US7100 20010307; US 2001044512 A1 Provisional US 2000-188663P 20000310, US 2001-801034 20010307; AU 2001045458 A AU 2001-45458 20010307; EP 1263810 A2 EP 2001-918373 20010307, WO 2001-US7100 20010307; KR 2002091120 A KR 2002-711792 20020909; US 6562751 B2 Provisional US 2000-188663P 20000310, US 2001-801034 20010307; BR 2001009032 A BR 2001-9032 20010307, WO 2001-US7100 20010307; JP 2003527403 W JP 2001-567812 20010307, WO 2001-US7100 20010307; US 2003191018 A1 Provisional US 2000-188663P 20000310, Div ex US 2001-801034 20010307, US 2003-359440 20030206; US 6747106 B2 Provisional US 2000-188663P 20000310, Div ex US 2001-801034 20010307, US 2003-359440 20030206; US 2004171481 A1 Provisional US 2000-188663P 20000310, Div ex US 2001-801034 20010307, US 2004-791242-20040302; US-6905999-B2 Provisional US-2000-188663P-20000310, Div ex US 2001-801034 20010307, US 2004-791242 20040302  
 FDT AU 2001045458 A Based on WO 2001068724; EP 1263810 A2 Based on WO 2001068724; BR 2001009032 A Based on WO 2001068724; JP 2003527403 W Based on WO 2001068724; US 2003191018 A1 Div ex US 6562751; US 6747106 B2 Div ex US 6562751; US 2004171481 A1 Div ex US 6562751; US 6905999 B2 Div ex US 6562751  
 PRAI US 2000-188663P 20000310; US 2001-801034 20010307;  
 US 2003-359440 20030206; US 2004-791242 20040302  
 AB WO 200168724 A UPAB: 20020117

NOVELTY - A chromium, manganese, vanadium, titanium, zirconium, or hafnium complex of an anion has three donor atoms that may coordinate to the **transition metal**.

DETAILED DESCRIPTION - A chromium, manganese, vanadium, titanium, zirconium, or hafnium complex of an anion is of formula (I).

R1 = optionally substituted hydrocarbyl;

R2, R4 = H or R1;

R3 = R2 or a functional group;

Z = bridging group of formula (II), (III), or (IV);

Q = N, O, P, or S;

R6-R15 = R2;

R20, R21 = R2 or may form a ring;

R22 = hydrocarbyl, O, or alkoxy;

T = P or S whose oxidation state is at least 3;

x = oxidation state of (T - 2).

R1 and R2 may be optionally substituted ortho-arylene or R1, R2, and R3 may form ring(s). Q is oxygen when Z is (II). R4 is not present when Q is oxygen or sulfur. R3 and R6 may form a ring. R3, R6, and R7 may form an aromatic ring or R6 and R7 may form a ring. R4 and R9 may be part of a double bond to an imino nitrogen atom, R8 and R9 may form a carbonyl with the carbon to which they are attached, R8 and R9 may form a ring, R4, R8 and R9 may form a ring, or R6-R9 may form an aromatic ring. R10-R13 may be ortho-arylene. R14 and R15 may form a carbonyl with the carbon to which they are attached, R12-R15 may form an o-arylene group, R10-R15 = may form a fused aromatic ring system, or R13 and R14 may form a ring. Two of R22 form T=O when R22 is oxygen.

INDEPENDENT CLAIMS are also included for:

(A) polymerization catalyst component comprising the inventive **transition metal** complex; and

(B) a process for the polymerization of olefins comprising contacting, at -100 to +200 deg. C, monomer(s) from ethylene and an olefin of formula  $H_2C=CH(CH_2)_nH$  with the polymerization catalyst component. n = at least 1.

USE - For polymerization catalyst used for polymerization of olefins, e.g. ethylene, useful in lubricants, waxes, **fiber**, films, and molding resins for packaging, and elastomers.

ADVANTAGE - The polymers produced have improved melt processing, toughness, and improved low temperature properties.  
Dwg.0/0

TECH UPTX: 20020117

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Component: The complex is zirconium or titanium.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Component: The anion is of formula (XXVI).

The complex is preferably of formula (V) or (VI), or (XXVII) or (XXVIII).

R24-R32 = R2 as above or a functional group;

M = Cr, Mn, V, Hf, or preferably Ti or Zr;

m = valence of M-2;

p = 0 or 1;

L1 = monodentate monoanionic ligand and at least for one of L1 an ethylene molecule may insert between L1 and M;

L2 = monodentate neutral ligand which may be displaced by ethylene or an empty **coordination** site;

L3 = monodentate ligand;

L4 = monodentate neutral ligand or an empty **coordination** site

R24-R32 vicinal to one another may form a ring. R27 and R28 may form a

ring, or R28 and R29 may form a ring. L1 and L2 may be a monoanionic

**polydentate** ligand and at least for one of these ligands ethylene

may insert between the ligand and M. L3 and L4 may form a monoanionic

bidentate ligand.

The catalyst component also includes a cocatalyst.

L95 ANSWER 22 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

AN 2001-638955 [73] WPIDS

DNC C2001-188970

TI Bleaching composition for laundry **fabrics** comprises hydrogen peroxide or its source, bleach catalyst comprising ligand which forms complex with **transition metal**, and dye transfer inhibiting agent.

DC A97 D25 E12

IN HAGE, R; VAN DEURZEN, M P; VEERMAN, S M; VAN DEURZEN, M P J

PA (UNIL) UNILEVER PLC; (UNIL) UNILEVER HOME & PERSONAL CARE USA DIV CO; (HIND-N) HINDUSTAN LEVER LTD; (UNIL) UNILEVER NV

CYC 94

PI WO 2001064828 A1 20010907 (200173)\* EN 91

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001025163 A 20010912 (200204)

US 2002010121 A1 20020124 (200210)

ADT WO 2001064828 A1 WO 2001-EP408 20010115; AU 2001025163 A AU 2001-25163  
20010115; US 2002010121 A1 US 2001-795810 20010228

FDT AU 2001025163 A Based on WO 2001064828

PRAI GB 2000-5089 20000301

AB WO 200164828 A UPAB: 20011211

NOVELTY - A bleaching composition for laundry **fabrics** comprises a hydrogen peroxide or its source, a bleach catalyst comprising a ligand which forms complex with **transition metal**, and a dye transfer inhibiting agent. The complex catalyses bleaching of stains in presence of peroxygen bleach or peroxy based or peroxy generating bleach system.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for



method for bleaching stains on laundry **fabrics** which involves contacting the stained **fabric**, in a wash liquor with the bleaching composition.

USE - For use in stain bleaching of laundry **fabrics**.

ADVANTAGE - The composition provides good bleaching performance on **fabrics** stains despite presence of dye transfer inhibition agent. The effectiveness of dye transfer inhibition agent is fully retained even in presence of iron bleaching catalyst or free ligand.  
Dwg.0/0

TECH

UPTX: 20011211

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The amount of dye transfer inhibiting agent is 0.02-5 weight% (wt.%) preferably 0.03-3 wt.% based on the composition. The bleaching composition in wash liquor comprises 0.05mM-50 mM, preferably 1-100 mM of catalyst. The composition provides a pH value of 6-11 preferably 8-10 in aqueous medium. Preferred Additives: The composition further comprises additives such as a surfactant or a builder.

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: The dye transfer inhibiting agent is chosen from polyvinyl pyrridine N-oxide (PVNO), polyvinyl pyrrolidone (PVP), polyvinylimidazole, N-vinylpyrrolidone and N-vinylimidazole copolymers (PVPVI), and/or modified **polyethyleneimine** polymers and copolymers.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Catalyst: The catalyst comprises a preformed complex of a ligand and **transition metal** or comprises a free ligand that complexes with the **transition metal** present in the water or in a substrate. Preferably, the composition comprises a free ligand or a **transition metal**-substitutable metal-ligand complex, and a source of transition element. The ligand is preferably a pentadentate ligand of formula (I) and the ligand forms complex of formula:  $(MaLkXn)Ym$  (II).

R1, R2 = -R4-R5;

R3 = H, optionally substituted alkyl, aryl, arylalkyl or -R4-R5;

R4 = single bond, optionally substituted alkylene, alkenylene, oxyalkylene, aminoalkylene, alkylene ether, carboxylic ester or carboxylic amide;

R5 = optionally N-substituted amino alkyl group, or optionally substituted heteroaryl group chosen from pyridinyl, pyrazinyl, pyrazolyl, pyrrolyl, imidazolyl, benzimidazolyl, pyrimidinyl, triazolyl and thiazolyl;

N = metal selected from Manganese (Mn(II)-(III)-(IV)-(V)), Copper (Cu(I)-(II)-(III)), iron (Fe(II)-(III)-(IV)-(V)), cobalt (Co(I)-(II)-(III)-(IV)-(V)-(VI)), titanium (Ti(II)-(III)-(IV)), vanadium (V(II)-(III)-(IV)-(V)), molybdenum (Mo (II)-(III)-(IV)-(V)-(VI)) and tungsten (W(IV)-(V)-(VI)), preferably iron (Fe(II)-(III)-(IV)-(V));

L = ligand (I) or its protonated or deprotonated analog;

X = coordinating species such as mono-, bi- or tri-charged anion and any neutral molecules capable of coordinating the metal in a mono-, bi- or tri-dentate manner;

Y = non-coordinated counter iron;

a, k = 1-10;

m = 0 or integer 1-20;

n = 0 or integer 1-10.

L95 ANSWER 23 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

AN 2002-010498 [01] WPIDS

DNC C2002-002493

TI Bleaching composition for laundry **fabrics**, comprises bleach catalyst and dye transfer inhibitor, and is devoid of peroxxygen bleach or

peroxy-based bleach.

DC A97 D25 E12  
 IN HAGE, R; VAN DEURZEN, M P J; VEERMAN, S M; VAN DEURZEN, M P  
 PA (UNIL) UNILEVER PLC; (UNIL) UNILEVER NV; (UNIL) UNILEVER HOME & PERSONAL  
 CARE USA DIV CO; (HIND-N) HINDUSTAN LEVER LTD  
 CYC 95  
 PI WO 2001064824 A1 20010907 (200201)\* EN 90  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
 NL OA PT SD SE SL SZ TR TZ UG ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
 SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
 AU 2001039237 A 20010912 (200204)  
 US 6340661 B1 20020122 (200208)  
 EP 1268731 A1 20030102 (200310) EN  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI TR  
 BR 2001008843 A 20030506 (200334)  
 CN 1416459 A 20030507 (200353)  
 EP 1268731 B1 20031217 (200404) EN  
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR  
 DE 60101563 E 20040129 (200416)  
 ES 2211778 T3 20040716 (200447)  
 ADT WO 2001064824 A1 WO 2001-EP1093 20010202; AU 2001039237 A AU 2001-39237  
 20010202; US 6340661 B1 US 2001-796140 20010228; EP 1268731 A1 EP  
 2001-913780 20010202; WO 2001-EP1093 20010202; BR 2001008843 A BR  
 2001-8843 20010202; WO 2001-EP1093 20010202; CN 1416459 A CN 2001-805891  
 20010202; EP 1268731 B1 EP 2001-913780 20010202; WO 2001-EP1093 20010202;  
 DE 60101563 E DE 2001-00101563 20010202; EP 2001-913780 20010202; WO  
 2001-EP1093 20010202; ES 2211778 T3 EP 2001-913780 20010202  
 FDT AU 2001039237 A Based on WO 2001064824; EP 1268731 A1 Based on WO  
 2001064824; BR 2001008843 A Based on WO 2001064824; EP 1268731 B1 Based on  
 WO 2001064824; DE 60101563 E Based on EP 1268731, Based on WO 2001064824;  
 ES 2211778 T3 Based on EP 1268731  
 PRAI GB 2000-5090 20000301  
 AB WO 200164824 A UPAB: 20040102  
 NOVELTY - The bleaching composition comprises a bleach catalyst containing  
 a **transition metal**-ligand complex and a dye transfer  
 inhibitor. The complex catalyses bleaching of stains in absence of  
 peroxygen bleach or peroxy-based or -generating bleach system.  
 DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for  
 method of bleaching stains on laundry **fabrics**. The stained  
**fabric** is contacted with the bleaching composition, in a wash  
 liquor, and bleached.  
 USE - As bleaching composition to remove stains from laundry  
**fabrics**.  
 ADVANTAGE - Stain bleaching is effectively performed and dye transfer  
 is efficiently inhibited.  
 Dwg.0/0  
 TECH UPTX: 20020105  
 TECHNOLOGY FOCUS - POLYMERS - Preferred Components: The dye transfer  
 inhibitor is selected from polyvinylpyridine N-oxide (PVNO),  
 polyvinylpyrrolidone (PVP), polyvinylimidazole, N-vinylpyrrolidone and  
 N-vinylimidazole copolymers (PVPVI), modified **polyethyleneimine**  
 polymers and/or copolymers. The inhibitor forms 0.02-5 weight% of the  
 composition, preferably 0.03-3 weight%.  
 TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Composition: 0.05  
 microM-50 mM, preferably 1-100 microM of a catalyst comprising a  
 pentadentate ligand (IVE) is added to the wash liquor.

R1, R2 = -R4-R5;  
 R3 = H, optionally substituted with alkyl, aryl or arylalkyl, or -R4-R5;  
 R4 = single bond or optionally substituted alkylene, alkylene, oxyalkylene, aminoalkylene, alkylene ether, carboxylic ester or carboxylic amide;

R5 = optionally N-substituted aminoalkyl or heteroaryl selected from pyridinyl, pyrazinyl, pyrazolyl, pyrrolyl, imidazolyl, benzimidazolyl, pyrimidinyl, triazolyl and thiazolyl.

The ligand forms a complex of formula (I).

(MaLkXn)Ym (I)

M = metal selected from Mn(II)-(V), Cu(I)-(III), Fe (II)-(V), Co(I)-(III), Ti(II)-(IV), V(II)-(V), Mo(II)-(VI) and W(IV)-(VI), preferably Fe(II)-(V);

L = ligand or its protonated or deprotonated analog;

X = coordinating species selected from mono, bi or tri charged anions and any neutral molecules able to coordinate the metal in mono, bi or tridentate manner;

Y = non-coordinated counter ion;

a = 1-10;

k = 1-10, n = 0 or 1-10;

m = 0 or 1-20.

Preferred Properties: pH of the composition is 6-11, preferably 8-10, in aqueous medium. A surfactant and a builder are further added to the composition. The catalyst comprises a preformed complex of the ligand and **transition metal**. The ligand is a free ligand or a **transition metal** substitutable metal-ligand complex.

Metal-ligand complex is formed in water or on substrate. Ligand with various substituted groups representing varied structural formulae are disclosed.

L95 ANSWER 24 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

AN 2000-246539 [21] WPIDS

CR 2005-112632 [12]

DNC C2000-074610

TI Olefin polymerization process utilizes a bulky ligand metallocene catalyst which has an abstractable fluoride or fluorine-containing leaving group.

DC A17 A85 A92 A96 D22 E11 E12 F07

IN MCCULLOUGH, L G; AGAPIOU, A K

PA (UNVN) UNIVATION TECHNOLOGIES LLC; (MCCU-I) MCCULLOUGH L G; (AGAP-I) AGAPIOU A K

CYC 24

PI WO 2000011047 A1 20000302 (200021)\* EN 50

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: AU BR CA JP

AU 9957741 A 20000314 (200031)

EP 1112293 A1 20010704 (200138) EN

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

BR 9913144 A 20011002 (200167)

US 2002032287 A1 20020314 (200222)

JP 2002523530 W 20020730 (200264) 62

AU 756665 B 20030123 (200319)

US 6632901 B2 20031014 (200368)

US 2003236364 A1 20031225 (200408)

US 2005164875 A1 20050728 (200550)

EP 1112293 B1 20051221 (200604) EN

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

ADT WO 2000011047 A1 WO 1999-US18368 19990812; AU 9957741 A AU 1999-57741

19990812; EP 1112293 A1 EP 1999-945045 19990812; WO 1999-US18368 19990812;

BR 9913144 A BR 1999-13144 19990812; WO 1999-US18368 19990812; US

2002032287 A1 Provisional US 1998-97401P 19980821, US 1998-191916

19981113; JP 2002523530 W WO 1999-US18368 19990812, JP 2000-566315 19990812; AU 756665 B AU 1999-57741 19990812; US 6632901 B2 Provisional US 1998-97401P 19980821, US 1998-191916 19981113; US 2003236364 A1 Provisional US 1998-97401P 19980821, CIP of US 1998-191916 19981113, US 2003-464110 20030618; US 2005164875 A1 Provisional US 1998-97401P 19980821, CIP of US 1998-191916 19981113, Div ex US 2003-464110 20030618, US 2005-33676 20050112; EP 1112293 B1 EP 1999-945045 19990812, WO 1999-US18368 19990812

FDT AU 9957741 A Based on WO 2000011047; EP 1112293 A1 Based on WO 2000011047; BR 9913144 A Based on WO 2000011047; JP 2002523530 W Based on WO 2000011047; AU 756665 B Previous Publ. AU 9957741, Based on WO 2000011047; US 2003236364 A1 CIP of US 6632901; US 2005164875 A1 CIP of US 6632901, Div ex US 6894131; EP 1112293 B1 Based on WO 2000011047

PRAI US 1998-191916 19981113; US 1998-97401P 19980821;

US 2003-464110 20030618; US 2005-33676 20050112

AB WO 200011047 A UPAB: 20060116

NOVELTY - Olefins are polymerized at at least 70 deg. C (preferably at least 75 deg. C) in the presence of a bulky ligand metallocene catalyst (I) having at least one fluoride or fluorine-containing leaving group

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a continuous gas phase process for polymerizing monomer(s) which comprises:

(a) introducing a recycle stream which contains one or more monomer(s) into a reactor;

(b) introducing a catalyst (I) system which comprises a bulky ligand metallocene-type catalyst having at least one fluoride or fluorine-containing leaving group;

(c) removing the recycle stream from the reactor and cooling it;

(d) introducing into the reactor additional monomer(s) to replace the polymerized monomer(s);

(e) reintroducing the recycle stream; and

(f) obtaining the polymer product from the reactor.

USE - For polymerizing olefins e.g. alpha-olefins having 2-20C at least one of which is preferably ethylene or propylene. The polymers are useful in such forming operations as film, sheet and **fiber** (co)extrusion as well as blow, injection and rotary molding. The film may be shrink, cling, stretch, sealing, oriented, snack packaging, heavy duty bags, grocery sacks, baked and frozen food packaging, medical packaging, industrial liners and membranes etc. in (non-)food contact applications. The **fibers** may be used to form filters, **diaper fabrics**, medical garments and geotextiles etc. Extruded articles include medical tubing, wire and cable coatings, geomembranes and pond liners. Molded articles include bottles, tanks, rigid food containers and toys etc.

ADVANTAGE - The catalyst systems have improved activity and productivity.

Dwg.0/0

TECH UPTX: 20000502

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compounds: The activator is alumoxane. The olefins are ethylene and at least one other alpha-olefin having 3-20C (excluding styrene).

Preferred Catalyst: The bulky ligand metallocene-catalyst compound is of formula (I)-(V):

LALBMQn (I)

M = group 4-6 **transition metal**;

LA and LB = substituted or unsubstituted bulky ligands capable of eta-5 bonding to M, preferably selected from: cyclopentadienyl, indenyl, tetrahydroindenyl, benzindenyl, fluorenyl, octahydrofluorenyl, cyclooctatetraendiyl, azenyl, borabenzene, amides, phosphides, alkoxides, aryloxides, imides, carbolides, borollides, porphyrins, phthalocyanines, corrins and polyazomacrocycles;

$n = 1-3$ ; and

Q = monoanionic labile ligand having a sigma-bond to M, at least one Q being fluoride and/or a fluorine-containing group.

LCAJMQn (II)

LC = as LA, LB;

J = a heteroatom ancillary ligand (bonded to M) of formula (JRz-1-y) where

J = N, P, O or S; R = 1-20C hydrocarbyl; y = 0 or 1; and z = the

coordination number of J);

A = a bridging group bonded to M and J;

n = 0-2;

L'w (sic) = an optional Lewis base; and

w = 0-3.

LDM(Q2YZ)An (III)

LD = as LA, LB;

~~Q, -Y, -Z = uncharged polydentate ligands bonded to M;~~

A = univalent or divalent anionic ligand bonded to M (at least one of A and Q is fluoride or a fluorine-containing ligand);

n = 1 or 2;

Q = -O-, -NR-, -CR2- or -S-;

Y = C or S;

Z = -OR, -NR2, -CR3, -SR, -SiR3, -PR2, -H or optionally substituted aryl, provided that when Q = -NR- then Z = -OR, -NR2, -SR, -SiR3, -PR2 or H;

R = a group containing C, Si, N, O and/or P;

Tm (sic) = an optional bridging group bonded to LD and another LD of another LDM(Q2YZ)An molecule, T being 1-10C alkylene or arylene optionally substituted with C or heteroatom(s), Ge, Si and alkylphosphine; and

m = 2-7.

((Z)XAt(YJ))qMQn (IV)

M = a Group 3-13, lanthanide or actinide metal;

Q = monovalent, bivalent or trivalent anion provided at least one is fluoride and/or a fluorine-containing radical, or is H, alkyl, aryl, alkenyl, alkylaryl, arylalkyl or hydrocarboxy;

J = heterocyclic ring, preferably of formula JR''m where J contains 3-6 C atoms; R'' = (cyclo)alkyl, alkenyl, alkynyl or aryl (or two R'' groups form a ring); and m = 0-5;

X, Y = groups bonded to M, one or more of them being heteroatoms, Y containing a heterocyclic ring comprising 2-50 non-H atoms;

Z = group bonded to X containing 1-50 non-H atoms;

t = 0 or 1 (when t = 1, A = a bridging group joined to at least one of X, Y or J);

q = 1 or 2;

n = 1-4; and

Tm (sic) = an optional bridging group.

(C5H4-dRd)Ax(C5H4-dRd)MQ(g-2) (V)

d = 0-4;

x = 0 or 1;

g = integer corresponding to the oxidation state of M.

TECHNOLOGY FOCUS - POLYMERS - Preferred Process: The polymerization is carried out with alpha-olefin(s) having 2-20C (preferably 2-10C) (at least one of which is preferably ethylene or propylene) in the presence of (I), an activator and a carrier. The process is a gas phase process or a slurry phase process especially a continuous gas phase process.

L95 ANSWER 25 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

AN 1999-508372 [42] WPIDS

DNC C1999-148431

TI New method for limiting growth of a microorganism.

DC A60 B02 C01 D15 D22 E12 F06 J01

IN CUNY, G D; LANDGREBE, K D; SHELBURNE, C E; SMITH, T P

PA (MINN) MINNESOTA MINING & MFG CO; (MINN) 3M INNOVATIVE PROPERTIES CO  
CYC 82

PI WO 9937154 A1 19990729 (199942)\* EN 50  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SZ UG ZW  
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE  
GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG  
MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG  
UZ VN YU ZW

AU 9874721 A 19990809 (200001)  
EP 1043932 A1 20001018 (200053) EN

R: DE FR GB IT

BR 9813248 A 20001031 (200060)  
US 6248733 B1 20010619 (200137)

JP 2002501008 W 20020115 (200207) -59-

EP 1043932 B1 20021218 (200301) EN

R: DE FR GB IT

DE 69810351 E 20030130 (200317)

ADT WO 9937154 A1 WO 1998-US9153 19980508; AU 9874721 A AU 1998-74721  
19980508; EP 1043932 A1 EP 1998-922102 19980508; WO 1998-US9153 19980508;  
BR 9813248 A BR 1998-1324 19980508; WO 1998-US9153 19980508; US 6248733 B1  
US 1998-4892 19980109; JP 2002501008 W WO 1998-US9153 19980508, JP  
2000-528160 19980508; EP 1043932 B1 EP 1998-922102 19980508, WO  
1998-US9153 19980508; DE 69810351 E DE 1998-610351 19980508, EP  
1998-922102 19980508, WO 1998-US9153 19980508

FDT AU 9874721 A Based on WO 9937154; EP 1043932 A1 Based on WO 9937154; BR  
9813248 A Based on WO 9937154; JP 2002501008 W Based on WO 9937154; EP  
1043932 B1 Based on WO 9937154; DE 69810351 E Based on EP 1043932, Based  
on WO 9937154

PRAI US 1998-4892 19980109

AB WO 9937154 A UPAB: 19991014

NOVELTY - A new method for limiting growth of a microorganism comprises  
exposing the microorganism to a composition comprising a metal-containing  
compound.

DETAILED DESCRIPTION - A new method for limiting growth of a  
microorganism comprises exposing the microorganism to a composition  
comprising a metal-containing compound. The metal-containing compound is  
of formula (I):

Z1 and Z2 = 5-14 ring atom arene;

G1 and G2 = metal ligating group, G1 and G2 being contained within or  
pendant from at least one of Z1 and Z2;

R = H, halogen, alkyl, acylamino, alkoxy, sulfonamido, aryl, thiol,  
alkylthio, arylthio, alkylamino, arylamino, amino, alkoxycarbonyl,  
acyloxy, nitro, cyano, alkylsulfonyl, arylsulfonyl, alkylsulfoxyl,  
arylsulfoxyl, aryloxy, hydroxyl, thioamido, carbamoyl, sulfamoyl, formyl,  
acyl, ureido, aryloxycarbonyl, silyl or sulfoalkoxy;

L1 = nitrogen heterocycle substituted with at least one of R1 and R2;

R1 and R2 = H, halogen, alkyl (including vinyl), hydroxyalkyl,  
acylamino, alkoxy, sulfonamido, aryl, alkylthio, alkylamino,  
alkoxycarbonyl, acyloxy, alkylsulfonyl, alkylsulfoxyl, alkylcarbamoyl,  
alkylsulfamoyl, formyl, acyl, silyl or sulfoalkoxy;

L2 = mono- or **polydentate** ligand;

X = nitrogen or CH;

M = di- or polyvalent **transition metal** ion of  
**coordination** number at least 4;

k, m and n = 1-3.

INDEPENDENT CLAIMS are included for:

- (1) The composition used in the method above; and
- (2) A metal containing compound having formula (II)  
R1, R2 = H, CH2OH, CHCH2 or CH2CH3;

Z = CH;

M = Pt.

ACTIVITY - Antimicrobial; antiviral; antibacterial; antifungal. In tests on virucidal activity against equine infectious anemia virus, the compound of formula (III) had 8,912 focus forming units/ml. at a concentration of 1.0  $\mu$ g/ml. with light.

MECHANISM OF ACTION - Replication of a microorganism is inhibited by the contact step or the microorganism is killed by the contacting step.

USE - (I) is useful for disinfecting surfaces, the surface optionally also being exposed to light and (I) are also useful for limiting the growth of a virus, bacterium and/or fungus. The compounds can be applied to disposable surfaces such as paper, tissues, cotton swabs, surgical wear and drapes. The composition can be used in **fibers**, polymers, **fabrics**, air and water filters. The compositions can be used in hospitals to sterilize medical equipment such as sutures, bandages and hypodermic needles.

ADVANTAGE - The compounds of the invention are light and heat stable. The incorporation of the compounds into **fibers** or materials can prevent the degradation of that material  
Dwg.0/0

TECH UPTX: 19991014

TECHNOLOGY FOCUS - BIOLOGY - Preferred method: The method further comprises the step of exposing the composition to light at least one time. The composition optionally further comprises a second antimicrobial agent selected from an antiviral agent, an antibacterial agent or an antifungal agent.

Preferred Compound: (I) has formula (II) above.

L95 ANSWER 26 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

AN 1998-063129 [06] WPIDS

DNC C1998-022137

TI Catalyst for bleach activation used for washing and bleaching substrates, e.g. laundry, dishwashing, etc. - comprise a **transition metal** complex with high oxidation activity and stability in aqueous alkaline media in the presence of peroxy compounds.

DC A97 D15 D25 E19 F09

IN JONG, B A M; HERMANT, R M; JONG, B A M J; DE JONG, B A M J

PA (UNIL) UNILEVER PLC; (UNIL) UNILEVER NV; (UNIL) LEVER BROS CO

CYC 77

PI WO 9748787 A1 19971224 (199806)\* EN 28

RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT  
SD SE SZ UG

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE  
GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW  
MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN YU

AU 9728928 A 19980107 (199820)

ZA 9705068 A 19990224 (199913) 25

EP 906402 A1 19990407 (199918) EN

R: DE ES FR GB IT

BR 9709798 A 19990810 (199953)

US 6022490 A 20000208 (200014)

ADT WO 9748787 A1 WO 1997-EP2322 19970429; AU 9728928 A AU 1997-28928  
19970429; ZA 9705068 A ZA 1997-5068 19970609; EP 906402 A1 EP 1997-922991  
19970429; WO 1997-EP2322 19970429; BR 9709798 A BR 1997-9798 19970429; WO  
1997-EP2322 19970429; US 6022490 A US 1997-878742 19970619

FDT AU 9728928 A Based on WO 9748787; EP 906402 A1 Based on WO 9748787; BR  
9709798 A Based on WO 9748787

PRAI EP 1996-201702 19960619

AB WO 9748787 A UPAB: 19980209

A bleach and oxidation catalyst comprises a **transition**

**metal** complex of formula  $(L_1M_mX_n)(z)Y_q$  (A) or precursors of this, where M = iron or manganese in the II, III, IV, V, VI or VII oxidation state; X = a coordinating species such as H<sub>2</sub>O, ROH, NR<sub>3</sub>, RCO<sub>2</sub><sup>-</sup>, OH<sup>-</sup>, OOH<sup>-</sup>, RS<sup>-</sup>, RO<sup>-</sup>, RCOO<sup>-</sup>, OCN<sup>-</sup>, SCN<sup>-</sup>, N<sub>3</sub><sup>-</sup>, CN<sup>-</sup>, F<sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup>, O<sub>2</sub><sup>-</sup>, NO<sub>3</sub><sup>-</sup>, NO<sub>2</sub><sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, SO<sub>3</sub><sup>2-</sup>, PO<sub>4</sub><sup>3-</sup> or aromatic nitrogen donors such as pyridines, pyrazines, pyrazole(s), imidazole(s), benzimidazole(s), pyrimidines, triazoles, thiazoles; where R = hydrogen, or optionally substituted alkyl or aryl; l, m, n = 0-3, with l at most m; Y = a counter ion, the nature of which is dependent on the charge of the complex; q = z/(charge Y); z = the charge of the complex and is an integer which can be positive, zero or negative; if z is positive, Y = an anion such as F<sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup>, NO<sub>3</sub><sup>-</sup>, BPh<sub>4</sub><sup>-</sup>, ClO<sub>4</sub><sup>-</sup>, BF<sub>4</sub><sup>-</sup>, PF<sub>6</sub><sup>-</sup>, RSO<sub>3</sub><sup>-</sup>, RSO<sub>4</sub><sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, CF<sub>3</sub>SO<sub>3</sub><sup>-</sup>, RCOO<sup>-</sup>, etc.; if z is negative, Y = a common cation such as alkali metal, alkaline earth metal or (alkyl)ammonium cation, etc.; and L = a **polydentate** ligand containing at least 6 heteroatoms, e.g., N, O, P, S, etc.

Also claimed are: (1) a catalyst oxidation system comprising the claimed catalyst and di-oxygen, hydrogen peroxide, peroxy acids, hydrogen peroxide-generating systems or bleaching activators; and (2) a bleaching composition comprising a peroxy bleaching compound and the claimed catalyst.

USE - The bleaching system may be used for the washing and bleaching of substrates including laundry, dishwashing and hard surface cleaning. The complex (A) may be used in e.g. the **textile** or fine chemical industries for e.g. epoxidation or hydroxylation processes, paper and woodpulp industries, or in waste water treatment.

ADVANTAGE - The **coordination** complexes are easily prepared from simple starting materials. They exhibit high oxidation activity and remarkably high stability in alkaline aqueous media in the presence of peroxy compounds. They can activate the di-oxygen, hydrogen peroxide or peroxy acids to provide favourable stain removal and efficient dye-transfer inhibiting properties in the presence of H<sub>2</sub>O<sub>2</sub>. The detergent bleaching compositions are effective over a pH of 6-13, preferably 7-11. Dwg.0/0

L95 ANSWER 27 OF 27 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 AN 1982-00488J [47] WPIDS  
 TI Absorbable surgical suture material - of high mechanical strength, softness and elasticity is based on mono carboxy cellulose.  
 DC A11 A96 D22 F01 F06 P32 P34  
 IN FURMANOV, J A; BOLENTSEV, G V; ORIDOROGA, V A; SHALIMOV, A A; SHALIMOV, S A; SILCHENKO, V P; TSUKANOVA, G M  
 PA (KHCH-R) KHARKOV CHEM-PHARM; (KICL-R) KIEV CLINICAL INST; (YASN-I) YASNITSKY B G  
 CYC 8  
 PI GB 2098615 A 19821124 (198247)\* 14  
 DE 3117906 A 19821125 (198248)  
 US 4364393 A 19821221 (198302)  
 FR 2506617 A 19821203 (198303)  
 JP 57195464 A 19821201 (198303)  
 SE 8104162 A 19830207 (198308)  
 CA 1154560 A 19831004 (198344)  
 GB 2098615 B 19850109 (198502)  
 JP 60026544 B 19850624 (198529)  
 CH 653895 A 19860131 (198608)  
 DE 3117906 C 19880225 (198808)  
 ADT GB 2098615 A GB 1981-14783 19810514; DE 3117906 A DE 1981-3117906 19810506; JP 57195464 A JP 1981-75791 19810521  
 PRAI GB 1981-14783 19810514  
 AB GB 2098615 A UPAB: 19930915  
 An absorbable surgical suture material is claimed which is based on



monocarboxycellulose of formula (I). m=D.P. of initial cellulose=250-3300;  
 p=molar fraction of D-glucopyranose cycles in one polymer  
 period=0.95-0.05; q=molar fraction of D-anhydroglucaronic acid  
 cycles=0.05-0.95; S=molar fraction of the complex fragment of  
 D-anhydroglucaronic acid, metal and ligand=0.03-0.55; Me=  
**transition metal**; n=valence of Me; k=  
**coordination** number of Me and is at least 4; Lig=at least one  
**polydentate** ligand and Dent=dentation of ligand(s) and is at least  
 2.

The material is for use in medicine, biology and veterinary practical  
 to join tissues. It may also be used in nappies, bandages, cotton wool and  
 tampons, etc.

The material possesses the necessary properties for being suture  
 material, it is non-allergenic, non-inflammatory, it has colour contrast  
 to blood and biological tissues, and disintegration time matches wound  
 healing time. It is soft, has elasticity and higher mechanical strength.  
 It is easily tied and slides through the tissues in dry and moist states.

L96 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:346727 CAPLUS  
 DOCUMENT NUMBER: 142:393777  
 TITLE: Durable charged particle coatings and materials  
 INVENTOR(S): MacDonald, John Gavin; McGrath, Kevin Peter;  
 Wu, Bin; Kim, Jaeho; Huang, Lei;  
 Greene, Sharon Linda; Fish, Jeffrey Eldon; Hu,  
 Sheng-hsin  
 PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 15 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005085144	A1	20050421	US 2003-686687	20031016
WO 2005039784	A2	20050506	WO 2004-US26915	20040818
WO 2005039784	A3	20050630		

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG,  
 BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR,  
 CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, EG,  
 ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL,  
 IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ,  
 LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX,  
 MX, MZ, MZ, NA  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-686687 A 20031016  
 AB This invention concerns coatings having high surface area materials and at  
 least one metal ion adsorbed onto the high surface area material as well  
 as substrates having the coating and methods of applying the coating. The  
 substrates may be films, woven fabrics or may be nonwoven fabrics. The

coatings have good **odor** and/or gas absorbing capabilities. Nonwoven fabrics include tissues, towels, coform materials, bonded carded webs, spunbond fabrics and so forth. The substrates may be made into storage and packaging material to reduce **odor** and retard the ripening of fruit. The substrates may be used in personal care products, to produce clothing for military and civilian applications and many other applications.

L96 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:975639 CAPLUS

DOCUMENT NUMBER: 140:395396

TITLE: **Fabrication** and in vitro testing of polymeric delivery system for condensed DNA

AUTHOR(S): **Huang, Yen-chen**; Connell, Maureen; Park,

~~Younie; Mooney, David J.; Rice, Kevin G.~~

CORPORATE SOURCE: College of Pharmacy, University of Michigan, Ann Arbor, MI, 48109-1065, USA

SOURCE: Journal of Biomedical Materials Research, Part A (2003), 67A(4), 1384-1392

CODEN: JBMRCH

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Polyethylenimine (PEI) was combined with plasmid DNA and freeze dried following the addition of sucrose as a lyoprotectant and pore-forming agent. Freeze-dried PEI DNA condensates were dry mixed with granular polylactide-glycolic acid (PLGA) then compression molded and sponged to encapsulated PEI DNA. A measurement of the elastic modulus indicated that 91% sucrose substituted for 95% sodium chloride as a porogen, resulting in PLGA sponges with a mech. modulus of 100 kPa. The PEI DNA was retained (80%) within PLGA sponges prepared with sucrose during the leaching and subsequent 2-wk release studies, whereas sodium chloride PLGA sponges caused the premature release (100%) of PEI DNA within 2 days. In vitro gene transfer studies with PEI DNA PLGA sponges established that adherent and infiltrating fibroblasts expressed reporter gene for 15 days compared with the short, 3-day expression mediated by direct gene of PEI DNA on cells in culture. The results demonstrate an approach to encapsulate condensed DNA in a PLGA sponge for the purpose of retaining DNA within the matrixes and creating efficient gene transfer during tissue engineering.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L96 ANSWER 3 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2006-038447 [04] WPIDS

DOC. NO. CPI: C2006-013785

TITLE: Protein-containing lipid implant for sustained delivery, includes compressed mixture of protein drug coated with hydrophilic polymer and lipid.

DERWENT CLASS: A96 B04

INVENTOR(S): CHANG, S G; CHOI, H I; JUNG, Y H; **KIM, J I**;  
**KIM, J S**; KIM, S K; LEE, H Y; LEE, J S; SEO, Y M;  
SEOL, E Y

PATENT ASSIGNEE(S): (PEPT-N) PEPTRON CO LTD

COUNTRY COUNT: 109

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
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WO 2005102284	A1	20051103	(200604)*	EN	95
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RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT

KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG  
 ZM ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE  
 DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG  
 KM KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ  
 OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA  
 UG US UZ VC VN YU ZA ZM ZW

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005102284	A1	WO 2005-KR1111	20050419

PRIORITY APPLN. INFO: KR 2004-27275 20040420

AB WO2005102284 A UPAB: 20060116

NOVELTY - A protein-containing lipid implant comprises a compressed mixture of a protein drug coated with a hydrophilic polymer and a lipid that is solid at room temperature, is new. The hydrophilic polymer has a molecular weight of more than 2000 daltons.

DETAILED DESCRIPTION - A protein-containing lipid implant comprising a compressed mixture of a protein drug coated with a hydrophilic polymer and a lipid. The hydrophilic polymer has a molecular weight of more than 2000 daltons. It is polyethylene glycol, polyvinylpyrrolidone, polyvinylalcohol, **polyethyleneimine**, dextran, dextran sulfate, chondroitin sulfate, dermatan sulfate, heparan sulfate, keratan sulfate, hyaluronic acid, chitosan, albumin, collagen, and/or fibrin. The lipid is solid at room temperature and is fatty acids, monoglycerides, diglycerides, triglycerides, sorbitan fatty acid esters, phospholipids, sphingolipids, cholesterol, waxes, or their salts and derivatives.

An INDEPENDENT CLAIM is also included for a method of preparing the protein-containing lipid implant comprising coating a protein drug with the hydrophilic polymer to yield a solid protein powder, mixing the coated solid protein powder with the lipid, and compressing or extruding the mixture to be formulated into a pharmaceutical dosage form.

USE - The lipid implant is used for sustained delivery.

ADVANTAGE - The lipid implant is capable of continuously and homogeneously releasing a protein drug into the body while maintaining the biological activity of the protein drug in vivo. It slowly releases the protein drug at consistent rates for a long period of time without denaturation at high initial burst of the protein drug. It solves the problem of instability of protein drugs, encountered in conventional sustained release preparations using a hydrophobic matrix, e.g. lipids. It can sustain the in vitro release of a protein drug in an active form and at an effective concentration for a longer period of time. It can effectively treat disease and reduce injection frequency.

Dwg.0/6

L96 ANSWER 4 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2005-395021 [40] WPIDS

DOC. NO. CPI: C2005-122166

TITLE: New composition comprising an ionic complex of a biological macromolecule and a polyelectrolyte-poly(ethylene glycol)diblock copolymer, useful for stabilizing and controlled delivery of ionic biopharmaceuticals e.g. proteins.

DERWENT CLASS: A18 A23 A25 A96 B04 D16

INVENTOR(S): BAE, Y H; **KIM, J H**; TALUJA, A

PATENT ASSIGNEE(S): (UTAH) UNIV UTAH RES FOUND

COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2005118718	A1	20050602	(200540)*		26

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005118718	A1 Provisional	US 2003-505055P	20030922
		US 2004-948077	20040922

PRIORITY APPLN. INFO: US 2003-505055P 20030922; US  
 2004-948077 20040922

AB US2005118718 A UPAB: 20050624

NOVELTY - A composition comprising an ionic complex, preferably a microsphere encapsulating an ionic complex of a biological macromolecule having a charge, and a polyelectrolyte-poly(ethylene glycol)diblock copolymer having an opposite charge, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (1) a method of stabilizing an ionic macromolecule against inactivation;
- (2) a method of delivering an ionic macromolecule to an individual in need;
- (3) a method of increasing transfection efficiency of DNA into mammalian cells; and
- (4) a method for increasing efficiency of incorporation of ionic macromolecules into microspheres.

USE - The compositions and methods are useful for stabilization and controlled release of ionic biopharmaceuticals e.g. proteins and peptides, nucleic acids, and antisense oligonucleotides to a person in need.  
 Dwg.0/14

L96 ANSWER 5 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2005-353725 [36] WPIDS

DOC. NO. NON-CPI: N2005-288787

DOC. NO. CPI: C2005-109230

TITLE: Reducing **odor** by applying on a substrate e.g. paper web involving modifying particles having a positive zeta potential with a **transition metal** ; and contacting with an **odorous** compound..

DERWENT CLASS: D22 E19 E37 F03 F04 F09 P34

INVENTOR(S): DO, B T; MACDONALD, J G; **MCGRATH, K; DO BAO, T; MCGRATH, K P**

PATENT ASSIGNEE(S): (KIMB) KIMBERLY-CLARK WORLDWIDE INC

COUNTRY COUNT: 2

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2005084464	A1	20050421	(200536)*		13
MX 2004009568	A1	20050401	(200571)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
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US 2005084464 A1  
MX 2004009568 A1

US 2003-686939 20031016  
MX 2004-9568 20041001

PRIORITY APPLN. INFO: US 2003-686939 20031016

AB US2005084464 A UPAB: 20050608

NOVELTY - Reducing **odor** involving modifying particles having a positive zeta potential with a **transition metal**; and contacting the modified particles with an **odorous** compound. The **transition metal** provides at least one active sites for capturing the **odorous** compound.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) an **odor** control composition comprising particles (P1) coated with alumina that are modified by a **transition metal** and having a positive zeta potential. The **transition metal** provides at least one active site for capturing an **odorous** compound;

(2) a substrate for reducing **odor** is applied with (P1); and

(3) an absorbent article comprising the substrate.

USE - For reducing **odor** by applying on a substrate (e.g. nonwoven, woven or paper web) which is used in an absorbent article, a facemask and paper product (claimed) e.g. facial tissue, bath tissue or paper towel.

ADVANTAGE - The **transition metals** are better at removing **odorous** compounds than the other metals.  
Dwg.0/0

L96 ANSWER 6 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2005-343699 [35] WPIDS  
DOC. NO. CPI: C2005-106330  
TITLE: Reduction of **odor** involves modifying surface of silica particles with **transition metal**, and contacting modified silica particles with **odorous** compound.  
DERWENT CLASS: D22 E19 E37 F03 F04 F09 J01 P34  
INVENTOR(S): DO BAO, T; KIM, J; MACDONALD, J G; DO, B T  
PATENT ASSIGNEE(S): (KIMB) KIMBERLY-CLARK WORLDWIDE INC  
COUNTRY COUNT: 108  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2005084438	A1	20050421	(200535)*		12
WO 2005039655	A1	20050506	(200535)	EN	
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE					
LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE					
DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ					
OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG					
US UZ VC VN YU ZA ZM ZW					

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2005084438	A1	US 2003-686938	20031016
WO 2005039655	A1	WO 2004-US16933	20040527

PRIORITY APPLN. INFO: US 2003-686938 20031016

AB US2005084438 A UPAB: 20050603

NOVELTY - **Odor** is reduced by modifying a surface of silica particles with a **transition metal** so that the silica particles are bonded to the **transition metal** through a covalent or coordinate bond; and contacting the modified silica particles with an **odorous** compound. The **transition metal** provides one or more active sites for capturing the **odorous** compound.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) a substrate for reducing **odor**, comprising silica particles bonded to the **transition metal** through the covalent or coordinate bond;
- (2) an absorbent article, comprising the above substrate;
- (3) a paper product, comprising the above substrate; and
- (4) a facemask, comprising the above substrate.

USE - Used for reducing **odor**.

ADVANTAGE - The process effectively reduces various types of **odors**.

Dwg.0/0

L96 ANSWER 7 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-737529 [72] WPIDS

DOC. NO. CPI: C2004-259374

TITLE: Cationic liposome useful for the treatment of sebaceous gland-related diseases e.g. acne is prepared by mixing a neutral liposome and a cationic additive.

DERWENT CLASS: A96 B07

INVENTOR(S): HAN, I S; JUN, M S; **KIM, J C**; JEON, M S; HAN, I; JUN, M; KIM, J

PATENT ASSIGNEE(S): (KIMJ-I) KIM J; (TRIC-N) TRICHOGENE INC

COUNTRY COUNT: 108

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004087107	A1	20041014	(200472)*	EN	26
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE					
LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE					
DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM					
PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US					
UZ VC VN YU ZA ZM ZW					
KR 2004076091	A	20040831	(200504)		
KR 2004076092	A	20040831	(200504)		
KR 479010	B	20050331	(200566)		

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004087107	A1	WO 2004-KR367	20040223
KR 2004076091	A	KR 2003-11423	20030224
KR 2004076092	A	KR 2003-11424	20030224
KR 479010	B	KR 2003-11423	20030224

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
KR 479010	B Previous Publ.	KR 2004076091

PRIORITY APPLN. INFO: KR 2003-11424 20030224; KR  
2003-11423 20030224

AB WO2004087107 A UPAB: 20041109

NOVELTY - A cationic liposome prepared by mixing a neutral liposome and a cationic additive, is new.

ACTIVITY - Antiseborrheic; Dermatological.

A topical cationic liposomal formulation containing (mg):

1,2-diacyl-sn-glycero-phosphocholin (14:0) (120), 1,2-diacyl-sn-glycero-phosphoglycerol (20), cholesterol (40), alpha -amino levulinic acid (10 mg) and a cationic additive 1,2-diacyl-3-trimethylammonium propane (30 mg) was prepared, and applied to patients afflicted with acne one a day for 5 days. After 2 weeks of observation, the efficacy of the formulation was evaluated and was found that the acne conditions were considerably cured. The secretion of sebum was noticeably reduced after 1 week, the skin coloration slightly appeared and crust was removed after 2 weeks.

MECHANISM OF ACTION - None given.

USE - The liposome is useful for the treatment of sebaceous gland related diseases, such as acne by photodynamic therapy.

ADVANTAGE - The cationic liposome formulation maintains the ionic characteristic as a cationic medicinal agent, while maintaining its stability and intrinsic function i.e. maintain the ionic intensity at a constant level at which skin permeation and cell absorption are maximally exhibited to a desired depth within a short penetration time. The ionic intensity is adjusted by adjusting the electric conductivity. Thus offers improved targeting efficiency to sebaceous glands composed of lipid vesiculae, which are highly capable of absorbing and adsorbing cationic liposomes, compared to the prior art non-ionic and neutral liposomes. Thus allows selective administration of the medicinal agent while maintaining its charge stability to the sebaceous gland to cause selective destruction of the glands in acne, without causing toxicity and side effects. The liposomes further have appropriate viscosity suitable to be applied to the skin for delivery of a medicinal agent. The cationic liposome formulation can also be effectively used in combination with iontophoresis for fast, high-dose medicinal agent administration.

Dwg.0/4

L96 ANSWER 8 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-571629 [55] WPIDS

DOC. NO. NON-CPI: N2004-452091

DOC. NO. CPI: C2004-208705

TITLE: Carbon nanoball useful for **deodorization** comprises a porous carbon shell having a spherical hollow core, a **deodorizing** material adhered to the shell, and a multi-layered structure with larger average diameter in outer layer.

DERWENT CLASS: D22 E37 P34

INVENTOR(S): KANG, Y; KIM, J; PARK, S; SONG, J; YOON, S; YU, J; SONG, J 1 H; KANG, Y S; **KIM, J Y**; PARK, S G; SONG, J Y; YOO, J S; YOON, S B

PATENT ASSIGNEE(S): (GLDS) LG HOUSEHOLD & HEALTHCARE LTD

COUNTRY COUNT: 104

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
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WO 2004064877 A1 20040805 (200455)\* EN 19  
 RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS  
 LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
 DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KZ  
 LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT  
 RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA  
 ZM ZW  
 KR 2004066335 A 20040727 (200474)  
 AU 2003232682 A1 20040813 (200479)  
 EP 1585552 A1 20051019 (200568) EN  
 R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV  
 MC MK NL PT RO SE SI SK TR

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004064877	A1	WO 2003-KR1155	20030612
KR 2004066335	A	KR 2003-3367	20030117
AU 2003232682	A1	AU 2003-232682	20030612
EP 1585552	A1	EP 2003-815459	20030612
		WO 2003-KR1155	20030612

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003232682	A1 Based on	WO 2004064877
EP 1585552	A1 Based on	WO 2004064877

PRIORITY APPLN. INFO: KR 2003-3367 20030117

AB WO2004064877 A UPAB: 20040826

NOVELTY - A carbon nanoball comprises a porous carbon shell having a spherical hollow core and at least one **deodorizing** material selected from **transition metal**, oxidized **transition metal** and alkali metal salt adhered to the shell. The shell has a multi-layered structure in which at least two layers having different pore sizes are included.

DETAILED DESCRIPTION - A carbon nanoball comprises a porous carbon shell having a spherical hollow core and at least one **deodorizing** material selected from **transition metal**, oxidized **transition metal** and alkali metal salt adhered to the shell. The shell has a multi-layered structure in which at least two layers having different pore sizes are included. An average diameter of pores formed in an outer layer is larger than an average diameter of pores formed in an inner layer or an average diameter of pores formed in an inner layer is larger than an average diameter of pores formed in an outer layer.

USE - For **deodorization** (Claimed) in houses, offices and industrial facilities. Also useful for **deodorization** for goods such as a diaper for infant or the person suffering from the incontinence or as a hygienic bane for women.

ADVANTAGE - The nanoball absorbs various kinds of stink-generating materials together with good **deodorizing** capability. The nanoball therefore gives excellent **deodorizing** effects by capturing and dissolving stinky substances when it is used as a **deodorant** for various stinky daily necessities or in houses, offices and industrial facilities.

Dwg.0/3



L96 ANSWER 9 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-487355 [46] WPIDS  
 DOC. NO. NON-CPI: N2004-384477  
 DOC. NO. CPI: C2004-181505  
 TITLE: Nanocarbon ball for **deodorization** comprises porous carbon shell having spherical hollow core with at least one **transition metal**, oxidized **transition metal** or alkali metal salt is impregnated to the shell.  
 DERWENT CLASS: D22 E31 E34 E36 P34  
 INVENTOR(S): **KIM, J Y**; LEE, C W; PARK, S G; PARK, Y G; SONG, J Y; YOO, J S; KANG, Y S; KANG, Y; KIM, J; LEE, C; PARK, S; PARK, Y; SONG, J; YU, J  
 PATENT-ASSIGNEE(S):--- (KANG-I) KANG Y;-- (KIMJ-I) KIM J;-- (LEEC-I) LEE C;-- (PARK-I) PARK S; (PARK-I) PARK Y; (SONG-I) SONG J; (YUJJ-I) YU J; (GLDS) LG HOUSEHOLD & HEALTHCARE LTD  
 COUNTRY COUNT: 104  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004126354	A1	20040701	(200446)*		8
WO 2004058312	A1	20040715	(200446)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
KR 2004058630	A	20040705	(200472)		
KR 2004059264	A	20040705	(200472)		
KR 2004059265	A	20040705	(200472)		
AU 2003235362	A1	20040722	(200476)		
EP 1578457	A1	20050928	(200563)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
BR 2003017209	A	20051101	(200574)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004126354	A1	US 2003-684352	20031010
WO 2004058312	A1	WO 2003-KR1149	20030611
KR 2004058630	A	KR 2002-84983	20021227
KR 2004059264	A	KR 2002-85851	20021228
KR 2004059265	A	KR 2002-85852	20021228
AU 2003235362	A1	AU 2003-235362	20030611
EP 1578457	A1	EP 2003-813982	20030611
		WO 2003-KR1149	20030611
BR 2003017209	A	BR 2003-17209	20030611
		WO 2003-KR1149	20030611

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003235362	A1 Based on	WO 2004058312

EP 1578457 A1 Based on WO 2004058312  
BR 2003017209 A Based on WO 2004058312

PRIORITY APPLN. INFO: KR 2002-85852 20021228; KR  
2002-84983 20021227; KR  
2002-85851 20021228

AB US2004126354 A UPAB: 20040720

NOVELTY - Nanocarbon ball comprises a porous carbon shell having a spherical hollow core and at least one metal selected from **transition metal**, oxidized **transition metal** or alkali metal salt is impregnated to the shell. The impregnated amount of the metal is 0.01 - 30 weight% of total weight of carbon ball.

USE - For **deodorizing** and eliminating various **odor** materials such as methanthiol, methyl sulfide, dimethyl disulfide, hydrogen sulfide, ammonia, trimethylamine, styrene, acetaldehyde, nitric oxide, nitrous oxide, indoor bad smells generated in bathroom, kitchen, footwear cabinet in home, and smell of tobacco. It also gives excellent effects in eliminating bad smells of refrigerator, air-conditioner, air cleaner, automobile room, exhaust gas of cars as well as a human body. It may be uniformly dispersed and stuck to one having a shape of sheet, pack or pad, thus it may be applied to goods such as a diaper for the infant or the person suffered from the incontinence or a hygienic band for women.

ADVANTAGE - The mesoporous pores formed in the shell may not only absorb various kinds of malodor substances but also chemically absorb and destroy the malodor substances for **deodorization**. Since the malodor substances are captured in the hollow core of the nano carbon ball for **deodorization** differently to the impregnated activated carbon it is possible to give sufficient contact time between the malodor substances and the **deodorizing** material impregnated on the inner surface of the shell. Also the nano carbon ball may prevent secondary pollution caused when decomposition products generated by the **deodorizing** materials are emitted outside.

Dwg.0/3

L96 ANSWER 10 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2004-498856 [47] WPIDS  
DOC. NO. CPI: C2004-184683  
TITLE: Flow-through assay device for detecting presence or quantity of analyte residing in test sample, comprises porous membrane in communication with detection and calibration probes capable of generating detection and calibration signals.

DERWENT CLASS: A89 B04 D16 J04  
INVENTOR(S): HUANG, Y; KAYLOR, R; SONG, X; WEI, N  
PATENT ASSIGNEE(S): (KIMB) KIMBERLY-CLARK WORLDWIDE INC  
COUNTRY COUNT: 108  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004121334	A1	20040624	(200447)*	18	
WO 2004061455	A1	20040722	(200448)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS					
LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK					
DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP					
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG					
PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC					
VN YU ZA ZM ZW					

AU 2003287309 A1 20040729 (200477)  
 EP 1573330 A1 20050914 (200560) EN  
 R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV  
 MC MK NL PT RO SE SI SK TR  
 TW 2004013726 A 20040801 (200581)

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004121334	A1	US 2002-325429	20021219
WO 2004061455	A1	WO 2003-US34544	20031029
AU 2003287309	A1	AU 2003-287309	20031029
EP 1573330	A1	EP 2003-781542	20031029
		<del>WO 2003-US34544</del>	<del>20031029</del>
TW 2004013726	A	TW 2003-133143	20031126

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003287309	A1 Based on	WO 2004061455
EP 1573330	A1 Based on	WO 2004061455

PRIORITY APPLN. INFO: US 2002-325429 20021219

AB US2004121334 A UPAB: 20040723

NOVELTY - A flow-through assay device (20) comprises porous membrane (23) in communication with detection probes capable of generating detection signal and calibration probes capable of generating calibration signal. The porous membrane defines a detection/calibration zone (31) where polyelectrolyte capture reagent is immobilized that is configured to directly or indirectly bind to the detection probes and/or calibration probes.

DETAILED DESCRIPTION - Flow-through assay device comprises porous membrane in communication with detection probes capable of generating detection signal and calibration probes capable of generating calibration signal. The porous membrane defines a detection/calibration zone where polyelectrolyte capture reagent is immobilized that is configured to directly or indirectly bind to the detection probes and/or calibration probes. The amount of analyte is capable of determination from the detection signal as calibrated through calibration signal.

An INDEPENDENT CLAIM is also included for a method for detecting the presence or quantity of an analyte residing in a test sample comprising providing a flow-through assay device having porous membrane, contacting a test sample containing the analyte with the detection probes and calibration probes, measuring the intensity of the detection signal and the intensity of the calibration signal generated in the detection/calibration zone, and calibrating the intensity of the detection signal with the calibration signal.

USE - For detecting the presence or quantity of an analyte residing in a test sample (claimed).

ADVANTAGE - The invention provides accurate, inexpensive, and readily controllable way of determining the presence of analyte in a test sample.

DESCRIPTION OF DRAWING(S) - The figure is a perspective view of a flow-through assay device.

Flow-through assay device 20

Rigid material 21

Conjugate pad 22

Porous membrane 23

Wicking pad 28

Detection/calibration zone 31  
Dwg.1/6

L96 ANSWER 11 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-131870 [13] WPIDS  
 DOC. NO. NON-CPI: N2004-105273  
 DOC. NO. CPI: C2004-052713  
 TITLE: Binder for use in positive active material composition  
 for lithium-sulfur battery useful in smaller, lighter,  
 and higher performance electronic and communication  
 equipment comprises butadiene-based copolymer.  
 DERWENT CLASS: A18 A25 A26 A85 L03 X16  
 INVENTOR(S): HAN, J S; JUNG, Y J; **KIM, J D**; KIM, S; CHUNG, Y  
 J; HAN, J; JUNG, Y; KIM, J  
 PATENT ASSIGNEE(S): (SMSU) SAMSUNG DENKAN KK; (SMSU) SAMSUNG SDI CO LTD  
 COUNTRY COUNT: 4  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004009399	A1	20040115	(200413)*		9
JP 2004047462	A	20040212	(200413)		12
CN 1471184	A	20040128	(200426)		
KR 2004005439	A	20040116	(200434)		
KR 467455	B	20050124	(200535)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004009399	A1	US 2003-614870	20030709
JP 2004047462	A	JP 2003-166410	20030611
CN 1471184	A	CN 2003-145326	20030703
KR 2004005439	A	KR 2002-40006	20020710
KR 467455	B	KR 2002-40006	20020710

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
KR 467455	B Previous Publ.	KR 2004005439

PRIORITY APPLN. INFO: KR 2002-40006 20020710

AB US2004009399 A UPAB: 20040223

NOVELTY - Binder for a lithium-sulfur battery comprises a butadiene-based copolymer.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) a positive active material composition for a lithium-sulfur battery, which comprises a positive active material comprising sulfur or a sulfur-based compound, a conductive agent, an organic solvent, a binder, and an agent for controlling viscosity, where the binder is distributed in the organic solvent to form an emulsion with particle sizes of at most 15  $\mu$  m; and

(b) a lithium-sulfur battery comprising a positive electrode comprising a positive active material, a conductive agent, and a binder; a negative electrode; and an electrolyte.

USE - The binder is used in a positive active material composition for a lithium sulfur battery (claimed), useful in smaller, lighter, and higher performance electronic and communication equipment.

ADVANTAGE - The inventive binder exhibits chemical resistance to polysulfides, is stable at battery working temperatures, forms an emulsion in organic solvents, and exhibits high adherence to positive active materials and electrodes used in the lithium-sulfur battery. Its high adherence to positive active materials allows for higher amounts of positive active materials to be used in the battery resulting in a high capacity lithium-sulfur battery.

Dwg.0/2

L96 ANSWER 12 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-458843 [43] WPIDS  
 DOC. NO. CPI: C2004-171296  
 TITLE: Adjuvant gene composition that protects against nuclease activity to reinforce immunity of antigenic substance, comprises cationic-polymer.  
 DERWENT CLASS: A97 B04 D16  
 INVENTOR(S): JUNG, M S; KIM, J G; KO, J J; OH, Y K; PARK, J S  
 PATENT ASSIGNEE(S): (OHYK-I) OH Y K  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
KR 2004006196	A	20040124	(200443)*		1

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
KR 2004006196	A	KR 2002-40189	20020711

PRIORITY APPLN. INFO: KR 2002-40189 20020711

AB KR2004006196 A UPAB: 20040709

NOVELTY - Adjuvant gene composition which safely protects the adjuvant gene from the nuclease, and increases the expression to effectively reinforce the immunity of the antigenic substance, is new.

DETAILED DESCRIPTION - An adjuvant gene composition contains cationic polymers in the concentration of 0.1-200% w/v. The cationic polymers are selected from **polyethyleneimine**, pegylated **polyethyleneimine**, histidylated **polyethyleneimine**, lactosylated **polyethyleneimine**, folate-conjugated **polyethyleneimine**, melittin-conjugated **polyethyleneimine**, polylysine, chitosan, spermine, protamine, polyamidoamine, **polypropyleneimine**, polybrene, and DEAE-dextran. The adjuvant genes are selected from the group consisting of interferon gamma, cytokine, chemokine, lymphotactin, and heat shock protein.

ACTIVITY - Immunostimulant.

MECHANISM OF ACTION - Vaccine.

Dwg.1/10

L96 ANSWER 13 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1998-388145 [33] WPIDS  
 DOC. NO. CPI: C1998-117551  
 TITLE: New silver staining with improved sensitivity for detection of DNA - comprises formation of a DNA-polymer complex and binding silver ions to the complex.  
 DERWENT CLASS: A14 A26 A96 B04 D16  
 INVENTOR(S): KIM, J; PARK, H; YOU, J; KIM, J J; PARK, H O;

Ernst Arnold 10/686,937

YUO, J H; YOO, J H

PATENT ASSIGNEE(S): (BION-N) BIONEER CORP; (BION-N) BIONEER CO

COUNTRY COUNT: 25

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9829567	A1	19980709	(199833)*	EN	17
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA CN JP RU US					
AU 9853447	A	19980731	(199849)		
EP 909332	A1	19990421	(199920)	EN	
R: CH DE FR GB LI					
CN 1208441	A	19990217	(199926)		
JP 11506942	W	19990622	(199935)		13
KR 98061920	A	19981007	(199948)		
US 6127122	A	20001003	(200050)		
KR 229598	B1	19991115	(200111)		
JP 3181925	B2	20010703	(200139)		5
CN 1129670	C	20031203	(200565)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9829567	A1	WO 1997-KR283	19971230
AU 9853447	A	AU 1998-53447	19971230
EP 909332	A1	EP 1997-950456	19971230
		WO 1997-KR283	19971230
CN 1208441	A	CN 1997-191718	19971230
JP 11506942	W	WO 1997-KR283	19971230
		JP 1998-529890	19971230
KR 98061920	A	KR 1996-81299	19961231
US 6127122	A	WO 1997-KR283	19971230
		US 1998-101305	19980702
KR 229598	B1	KR 1996-81299	19961231
JP 3181925	B2	WO 1997-KR283	19971230
		JP 1998-529890	19971230
CN 1129670	C	CN 1997-191718	19971230

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9853447	A Based on	WO 9829567
EP 909332	A1 Based on	WO 9829567
JP 11506942	W Based on	WO 9829567
US 6127122	A Based on	WO 9829567
JP 3181925	B2 Previous Publ. Based on	JP 11506942 WO 9829567

PRIORITY APPLN. INFO: KR 1996-81299 19961231

AB WO 9829567 A UPAB: 20001109

High-sensitivity silver staining process comprises: (a) linking DNA to a polymer (which has a high affinity for DNA) to give a DNA-polymer complex, by immersing a DNA-containing gel to an aqueous solution containing the polymer, and (b) binding silver ions to the DNA-polymer complex.

The polymer is **polyethyleneimine** or polyacrylic acid. The concentration of the polymer in the aqueous solution is 0.2-0.4% by volume.

USE - The process is useful for high-sensitivity silver staining of DNA molecules, e.g. for DNA detection or DNA sequencing.

ADVANTAGE - The process allows detection of DNA with higher sensitivity and reproducibility, compared to conventional silver staining methods where silver ion is linked directly to the DNA molecule.

Dwg.0/3

L96 ANSWER 14 OF 14 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 1987-186794 [27] WPIDS  
 DOC. NO. CPI: C1987-077802  
 TITLE: New 1,2-di amino cyclohexane platinum complexes - useful as antitumour agents.  
 DERWENT CLASS: B02  
 INVENTOR(S): GILL, D S; MCGRATH, K J; SCHWARTZ, P  
 PATENT ASSIGNEE(S): (ANDR-N) ANDRULIS RES CORP  
 COUNTRY COUNT: 20  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 228298	A	19870708	(198727)*	EN	24
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
US 4680308	A	19870714	(198730)		6
AU 8665748	A	19870702	(198733)		
JP 62158297	A	19870714	(198733)		
ZA 8609649	A	19870623	(198740)		
CA 1261863	A	19890926	(198945)		
IL 80620	A	19901223	(199107)		
EP 228298	B	19920318	(199212)		18
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
DE 3684435	G	19920423	(199218)		
ES 2039204	T3	19930916	(199342)		
JP 07017666	B2	19950301	(199513)		

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 228298	A	EP 1986-310170	19861229
US 4680308	A	US 1985-813451	19851226
JP 62158297	A	JP 1986-316078	19861224
ZA 8609649	A	ZA 1986-9649	19861223
EP 228298	B	EP 1986-310170	19861229
ES 2039204	T3	EP 1986-310170	19861229
JP 07017666	B2	JP 1986-316078	19861224

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
ES 2039204	T3 Based on	EP 228298
JP 07017666	B2 Based on	JP 62158297

PRIORITY APPLN. INFO: US 1985-813451 19851226

AB EP 228298 A UPAB: 19930922

Pt complexes of formula (I) and their salts with bases are new: where Z = CO or a single bond; R1 = H or one or more non-interfering subsits.; R2 = a solubilising acid gp. and opt. one or more non-interfering substits; M = Pt(II) or Pt(IV)L1L2; L1 and L2 = non-interfering ligands, e.g. OH or H2O, or L1+L2 = a bidentate or polydentate non-interfering

ligand.

More specifically R1 = H, R2 = COOH or SO3H meta to Z; M = Pt(II); the cyclohexane ring is in the trans configuration. 3 cpds. are specifically claimed including 4-carboxycatecholato (trans-1,2-diaminocyclohexane) -platinum (II).

USE/ADVANTAGE - (I) are antitumour agents with high activity, good stability in solution, and higher therapeutic indices than cisplatin, e.g. giving T/C values of 128-357% against L1210 leukaemia in mice at doses of 3.12-200 mg/kg.

In an example, a mixture of 1.65g dichloro(trans-1,2- diaminocyclohexane) platinum (II). 1.4g AgNO3 and 25 ml H2O was stirred for 2 hr., filtered, and added to a solution prepared by dissolving 0.88g 4-hydroxyisophthalic acid in H2O and adjusting to pH 9 with 5N NaOH. The mixture was filtered, adjusted to pH 3 with HNO3, kept at room temperature overnight, and the ppte. collected, washed and dried to give 0.95 g of (Ib).  
0/0

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